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A MONTHLY REVIEW OF THE

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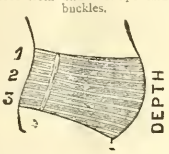

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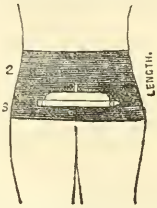

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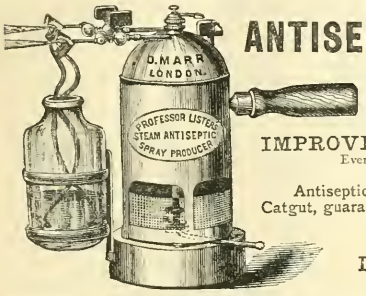

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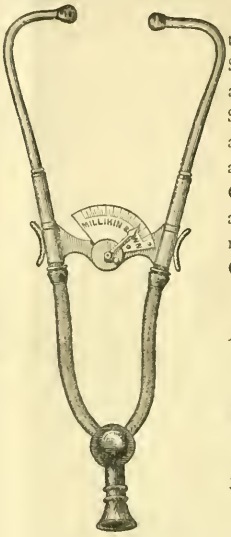

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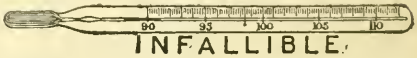

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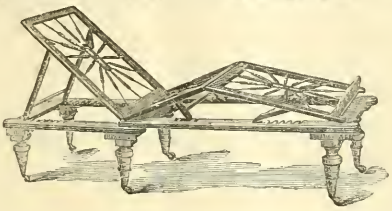

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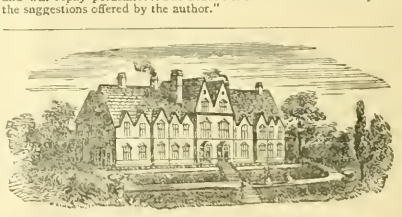

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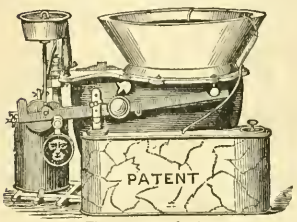

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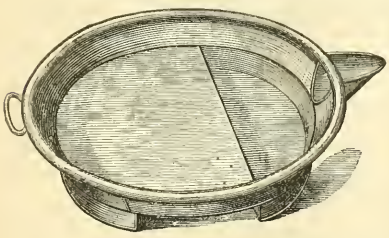

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Medical Record.

BETZ ON THE MICROSCOPIC STRUCTURE OF THE CORTEX CEREBRI.

PROFESSOR BETZ (*Centralblatt fur die Med. Wiss.*, 1881, Nos. 11, 12, and 13) has endeavoured, by his histological researches, to verify the statements of Hitzig and Ferrier respecting the localisation of functions in the cortex cerebri. In 1874 he pointed out that the 'motor zone' contained large cells, to which the name of giant-cells was given, though they have nothing to do with the giant-cells which play so large a part in the modern descriptions of new growths. He says, the cortex cerebri, as is well known, is composed of five layers, as follow :— 1, a layer of neuroglia, containing small granular nuclei ; 2, in addition to the preceding, there are pyramidal cells of medium size, with the apices directed towards the periphery, and their bases towards the central parts ; 3, very large pyramidal cells, which are, however, fewer and scattered ; 4, small round or elliptical cells, constituting the 'nuclear layer' ; 5, special fusiform cells.

This is the typical arrangement, but the various regions show differences. Thus, Meynert has shown that, in the neighbourhood of the calcarine fissure, the third layer is absent, and the structure in this region consists of two nuclear layers separated by a layer of nerve-fibres, on which lie by pairs large pyramidal cells. The hippocampus also is principally composed of the elements of the third layer. The claustrum consists of the elements of the fifth layer ; the ascending frontal, and the paracentral lobe contain 'giant-cells' grouped in nests.

He has examined 5,000 preparations from brains of all ages, and has come to recognise, in addition to the above, certain other regional peculiarities.

The *ascending frontal convolution* in its upper two-thirds, presents the following characters. At first, just above the fifth layer, there are large cells, single or united by pairs, and at great intervals one from another ; higher up, these cells are grouped in threes and fours, and the intervals are less. Higher still, the groups are formed by a large number of cells, not less than four, often six or seven. In the third layer, they present an uninterrupted series. In the second, they are as scattered as in the fourth. Near the paracentral lobe, this series is again interrupted so as to form groups or nests. Nearer the lobe the cells become larger, until they pass into the condition of the true giant-cells of that region. These latter are never found in the ascending parietal.

The *convolution of the corpus callosum* is composed at its origin, beneath the anterior part of the lamina terminalis, almost exclusively of two layers, the superior and the fifth ; while the cells of the latter, instead of being parallel to the base of the convolution, are perpendicular, like the cells of the third layer elsewhere, and they are two or three times larger than the ordinary fusiform cells of the third layer. In the middle of this convolution, the 'nuclear layer' (fourth), and the layer of pyramidal cells, reappear. In the posterior third, three new layers occur. The first, lowest, is composed of longitudinal fibres, forming an arch over the upper surface of the corpus callosum. The second layer, grey, is formed of small round cells ; the third, equally grey, contains pyramidal cells, and also large fusiform cells. These three layers become more and more important towards the extremity of this convolution, but never involve more than its inferior and internal portions. Where the convolution of the corpus callosum passes into the hippocampus, the layer of large cells suddenly increases, and goes to form the internal cellular layer of the hippocampus. The nuclear layer, above described, becomes the well known nuclear layer of the hippocampus ; and the layer of white fibres adjacent to the corpus callosum passes to form the reticular white matter of the hippocampus.

The *extremity of the hippocampus*, and the terminal part of the temporal lobe, present the peculiarity that the pyramidal cells of the third layer are found immediately beneath the first, and are arranged in groups like balls of thread, whence they have been named by Betz *cortical glomeruli*.

The *third frontal convolution* is separable into three parts, the most posterior extending from the ascending frontal convolution to the perpendicular branch of the fissure of Sylvius ; the middle portion extends from this limit to the beginning of the orbital portion of the convolution : and the third, situated on the under surface of the brain, extends from the extremity of the convolution to the island of Reil. The first portion contains in the third layer pyramidal cells of larger size than are found elsewhere in the frontal lobe ; and in brains of persons of advanced age, there may be giant cells of small size, which pass into the extremity of the ascending frontal. The second portion contains, in the second and third layers, long, slender, pyramidal cells grouped together, and with their processes directed obliquely. The third portion contains chiefly cells on the type of the fifth layer, and of the size of those of the claustrum, arranged, generally, perpendicularly to the transverse section of the cortex ; sometimes there are some cells of the third layer, but they are very small.

The *island of Reil* contains numerous small cells, like those of the fifth layer.

The *lingual lobe* possesses eight layers from without inwards : 1, the layer of neuroglia ; 2, very small pyramidal cells ; 3, nuclei ; 4, horizontal fibres ; 5, nuclei ; 6, horizontal fibres ; 7, triangular pyramidal cells ; 8, fusiform cells.

The *fusiform lobule* has an analogous structure ; but, as it approaches the occipital lobe, the seventh layer disappears, and at the end of the descending gyrus all the layers unite to form a homogeneous mass of nucleated cells, and a little row of fusiform cells.

The external portion of the *occipital lobe* has the second and third layers of pyramidal cells of the ordinary type, and here and there there are cells of large size.

The *angular gyrus* has an analogous structure, but the cells of the third layer are much larger than in the occipital lobe.

The *ascending parietal convolution*, and *superior parietal* and *inferior parietal lobules*, have the ordinary typical structure.

The three *temporal convolutions* are distinguished by the thickness of the fifth layer, and by the presence of small cells in the third.

The *parieto-temporal* and *transverse temporal* convolutions are of the ordinary type.

The *quadrate lobe* has near its upper border, in the third layer and above the fifth, two rows of pyramidal cells.

The *frontal convolutions*, excepting the lowest, already described, have a very thick third layer of large pyramidal cells, which almost obliterates the fourth layer.

The *straight gyrus* is very like the convolution of the corpus callosum.

In the *female*, the third layers in the frontal and parietal lobes are thinner, and the pyramidal cells fewer; while, in the occipital lobes, the same layer presents larger and more numerous cells.

In the *embryo*, at seven months, the cortex is composed of only two layers, the first and fourth, and pyramidal cells may be seen only in the hippocampus.

In the *new-born child* the cortex is much the same, but the hippocampus has all its elements as visible as in the adult, and in the paracentral lobe there are some giant-cells, which may be distinguished by their pyramidal form and three prolongations. At the age of *six weeks*, the pyramidal cells of the third layer may be observed in several convolutions.

In *children of eleven to twelve years*, the giant-cells have still few prolongations, the apical prolongation is still short and pale, and no basal prolongation has been observed.

In the case of an *idiot* (Motté), the frontal lobe was composed of irregular, slender pyramidal cells, in which it was impossible to distinguish the five layers. The giant-cells of the ascending parietal and paracentral regions were narrow, oblique, and furnished with few prolongations, the basal prolongation being absent. The parietal and occipital lobes had the nuclear layer well developed, while the pyramidal layer was small, thin, and contained chiefly the small pyramidal cells of the second layer. The *hippocampus* had its white substance very well developed; its characteristic cellular layer was small, as was also the nuclear layer.

With respect to the origin of the olfactory nerve, the olfactory tubercle contains a first layer of small pyramidal cells, few in number; a thick layer of nuclei, and large cells in the fifth layer, like those in the convolution of the corpus callosum. There is, in the inferior portion of the tubercle, a bundle of white fibres, coming from the corpus callosum; and the same region contains a gray layer, consisting of oval ganglionic cells, of large size, and furnished with processes, recalling the cells of the cornua of the spinal cord. In the brain of Motté, this grey layer was much better developed than usual. This grey layer may be called the central ganglion of the olfactory tubercle.

These facts afford an anatomical confirmation to the researches of Ferrier. Convolutions are organs separated by sulci, or fissures, in which lie the blood-vessels supplying them. The larger the convolutions, the greater is the development of the particular organ; and the more numerous the convolutions, the greater is the specialisation of function.

ROBERT SAUNDBY, M.D.

KÖLLIKER ON THE STRUCTURE OF THE MAMMA.

THIS author gives (*Verhandl. der Phys. Med. Gesellsch. in Würzburg*, Band xiv, Heft 3 and 4) a detailed description of the minute anatomy of the male and female mamma at various ages. In the new-born infant, sex makes very little difference in the structure. At this period there are no terminal gland-vesicles, the ducts are lined with a single layer of cylinder epithelium or with a few layers of pavement cells, and end in club-like extremities. The ducts he finds in all cases irregularly dilated, the dilatations being filled with shed epithelial cells and a white granular material—forming the so-called 'witch-milk', which he regards as normal. During the first year, the most noticeable point is the great dilatation of the ducts, giving the organ a cavernous appearance. The ducts are lined, according to the amount of dilatation, either with flattened epithelium or with several layers of round cells; and those which reach into the depth of the organ have now several club-like terminations. Strings of cells, afterwards developing into fat-cells, are also seen in the deeper parts of the gland. The above-mentioned dilatations gradually diminish during the latter half of the first year, till the lumen is normal, but in some cases swelling of the gland goes on, and a true mastitis results, from which, in all probability, follow those cases of imperfect development of the breast in otherwise well-developed women. From the age of one to ten little change takes place beyond the development of fat around the organ and the increase of the septa of connective tissue.

From ten to twenty, the male mamma changes but little, although the terminal gland-vesicles may develop here and there on one or both sides. From twenty to thirty, the male mamma reaches its highest development. The ducts divide dichotomously at their extremities, and send off cellular processes which develop into vesicles. The cutaneous papillæ, the smooth muscular fibre, and the sudoriparous glands, are also much developed. From thirty to fifty, regressive changes occur, gradual disappearance of the terminal vesicles from fatty degeneration of the epithelium with contraction of their lumen and a matting of the connective tissue. The ducts also become tortuous and varicose, and, in later life, there is a great enlargement of the sebaceous glands.

In the virgin mamma, there is no division into lobes. The great part of the gland lies underneath the areola and towards the lower segment of the organ. The cutaneous papillæ are not much developed, and the interstitial tissue is almost tendinous in structure. The gland-vesicles are few in number, even at the age of twenty. They are formed by cellular offshoots from the ducts, at first solid, but gradually acquiring a lumen. In pregnancy, this process goes on rapidly and in large extent. Circular and longitudinal smooth muscular fibres are present in considerable quantity; both classes of fibres being tolerably uniform on the nipple, while the circular fibres seem to preponderate in the areola. During menstruation, although the organ sometimes becomes harder and more sensitive, the author discovered no change. Probably the symptoms are caused by a temporary hyperæmia, producing more rapid growth. During pregnancy and lactation, the papillæ on the nipple are broad but not high, those on the areola are long and pointed. The rete Malpighii contains a thick layer of yellowish-brown pigment. From eighteen to twenty-two ducts converge to the depression of the nipple to open between the cutaneous papillæ, each of these ducts being made up of from four to fourteen branches. The connective tissue of the gland is loose and relatively less in quantity. The terminal vesicles are now well developed, forming a well-marked racemose gland. They are best developed in the deeper parts of the gland, the superficial part consisting mainly of excretory ducts and connective tissue. Between the papillæ of the areolar space are found the pro-

minences of Montgomery's glands, specially developed sebaceous glands, about a dozen in number. Regressive changes follow pregnancy and lactation, general relaxation of the breast, the nipple and areola retaining their size, although the pigmentation slightly lessens in degree. The vesicles also lessen in size. The lobules become separated by more connective tissue. Later in life, the whole glandular tissue disappears except the excretory ducts; the fat also atrophies, and we have the pendent breasts of age.

JAMES ANDERSON, M.D.

WEIL ON THE THEORY OF MITRAL INSUFFICENCY.

IN most handbooks of medicine, in the chapter devoted to heart-affections, we find the theory of 'compensation in valvular disease' based upon the law of retrodilatation and consecutive hypertrophy of the section of the heart situated above the lesion. According to this, mitral insufficiency should be followed by dilatation and hypertrophy of the left auricle, and shortly of the right ventricle. The fact that excentric hypertrophy of the left ventricle is found in cases of simple mitral insufficiency has been frequently observed, but, nevertheless, scarcely rightly estimated.

Weil (*Berl. Klin. Woch.*, No. 7) agrees with Waldenburg in thinking excentric hypertrophy of the left ventricle a necessary condition for efficient compensation for insufficiency of the mitral valve, dilatation and hypertrophy of the left auricle and right ventricle being of themselves insufficient to compensate for the lesion. Weil's argument is clear and simple. Mitral insufficiency is only compensated for, when, in spite of regurgitation of a portion of the contents of the ventricle into the auricle, the same quantity of blood enters the general circulation with each systole, as is the case with competent valves. Hence the ventricle must be capable of containing as much more blood as is regurgitated at each systole; as a consequence it must be dilated, and, since the work is increased, it usually becomes hypertrophied. The clinical diagnosis of excentric hypertrophy depends on the force of the impulse and on percussion. Exaggeration of the sounds over the aortic valves may be absent, since that is merely indicative of increased tension in the aortic system. A further postulate of compensation is dilatation and hypertrophy of the left auricle, and, *finally, hypertrophy of the right ventricle;* the latter may, however, be developed without accompanying dilatation. In proof of this, Weil has continually found excentric hypertrophy of the left auricle, while he very commonly failed to discover any enlargement of the right heart. Exaggeration of the sounds over the pulmonary valves always existed, a sign of increased tension in the pulmonary circulation. The systolic murmur at the apex alone proves little. The existence of excentric hypertrophy of the left ventricle with a normal pulse, allows the presumption of insufficiency of the mitral valve even before auscultation.

If with mitral insufficiency stenosis be associated, the hypertrophy may retrogade and altogether disappear, for the stenosis diminishes the amount of blood entering during diastole. The knowledge of this circumstance is the more important for the diagnosis of the combination of stenosis and insufficiency, since, in spite of serious stenosis, no presystolic murmur may exist.

If, however, on the *post mortem* table excentric hypertrophy of the left ventricle be seen associated with serious stenosis, it may in these cases be assumed that the hypertrophy is of older date; in fact, dates from the time when the insufficiency of the valves prevailed.

G. H. MAKINS.

WAGNER ON AMYLOID DEGENERATION OF THE KIDNEY.

IN the twenty-eighth volume of the *Deutsch Archives für Klinische Medicin*, Wagner publishes an interesting paper upon amyloid degeneration of the kidney. In regard to etiology, out of 265 cases, Wagner found that 136 accompanied phthisis; 56 occurred along with disease of bone (non-syphilitic); 36 accompanied syphilis; 30 were found in connection with certain rarer diseases; and with regard to 7, no probable mode of origin was apparent. The more interesting portion of this paper is that in which the author deals with the symptomatology of waxy kidney. In comparatively few of these cases were the symptoms observed during life so closely as to be of service: only twenty-four appear to have been available, and of these the majority were only under observation for very limited periods; the longest apparently only during a few months. Studying these cases in detail, Wagner separates them into four groups: 1. Slight amyloid degeneration of the cortical or the medullary substance, or of both, without alteration of the epithelium or of the stroma; this variety was hardly observed clinically; 2. Greater or less waxy degeneration of the cortical or medullary portion, with a varying amount of fatty degeneration of the epithelium, without changes in the stroma; 3. The same waxy degeneration, along with fresh interstitial changes; 4. Waxy-contracted kidney. In regard to this last-named condition, Wagner adopts the view held by Cohnheim, Bartels, Rokitansky, etc., viz., that the waxy change occurs in the kidney after it has become cirrhotic. With regard to the condition of the urine in these cases, Wagner found that it was almost invariably diminished in quantity, and this without diarrhœa, perspiration, or increasing œdema being present. In a few cases the urine was of normal quantity, and only in two does it appear to have exceeded that amount. The quantity of albumen was, in 13 cases of the 15 belonging to the first two groups, in medium or in great amount ($\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or even $\frac{1}{1}$ volume); but in two cases it was at the commencement small in quantity, afterwards increasing. The tube-casts varied much in number from one day to another. They were for the most part of medium diameter, and usually hyaline, sometimes fatty. Wagner believes that œdema is more rarely met with in such cases than is generally supposed. In conclusion, he observes that, while waxy kidney may often be diagnosed with care, there are many cases in which such a diagnosis cannot be arrived at with any certainty.

J. GRAHAM BROWN, M.D.

CHARCOT ON THE PATHOGENESIS OF ALBUMINURIA.

PROFESSOR CHARCOT (*Le Progrès Médical*, 1881, No. 19) in a recent lecture, proceeds to explain how the theoretical doctrine of the dependence of albuminuria on retardation of the blood-current (see

LONDON MEDICAL RECORD, April 15th, 1881, p. 133) is applicable to the clinical facts in our possession.

The physiological experiments of Gull and Stokvis, of raising the arterial pressure in the kidneys by ligaturing arteries or compressing the abdominal aorta, showed that high pressure alone would not determine albuminuria. This may seem at variance with the clinical fact of the presence of albuminuria in interstitial nephritis with hypertrophied heart; but M. Charcot explains this by the fact that some of the glomeruli are more or less profoundly altered, in consequence of which both the pressure and the rapidity of the blood-current are diminished. [It is obvious that, if the changes in the glomeruli are to be called in question at all, M. Charcot is departing from the mechanical theory he has propounded.—*Rep.*] On the other hand, Overbeck's experiment of reducing the blood-pressure by introducing a sound into the right ventricle, carrying a small bladder which can be inflated at will, is always followed by albuminuria. Here the condition of things is diminution of pressure and rapidity. Such a condition is met with clinically in valvular disease of the heart, chronic disease of the myocardium, and some pulmonary diseases. In cases of mitral insufficiency, Rosenstein observed that the albumen disappeared as the urine increased, and returned as it fell in quantity. The cardiac kidney is not the cause of the albuminuria of heart-disease, but the consequence of the state of things which causes the albuminuria. The albuminuria of Asiatic cholera and other acute diseases is also explained by this theory. The anatomical theory which refers albuminuria to a lesion of the renal epithelium, supported of late by Lécorché, is opposed by the experiments which show that albumen is excreted by the glomeruli, and that its presence in the convoluted tubules is a pathological occurrence, and by the fact that the epithelium may be profoundly altered or destroyed, as in granular kidney or in phosphorus poisoning, without albuminuria.

ROBERT SAUNDBY, M.D.

LESSER ON THE CAUSES OF DEATH FROM BURNS.

LESSER (Virchow's *Archiv*, Band lxxix) first of all combats the deductions drawn by Sonnenburg from his experiments (*Deutsche Zeitsch. für Chir.*, Band ix), and, supported by his own experiments, concludes that irritation of the terminations of the cutaneous nerves is of no special importance in death rapidly following burns. He then passes on to demonstrate the changes which take place in the blood circulating in the skin in burns of the surface of the body; and further, the changes induced in the body by these alterations. He has come to the conclusion that (apparently without essential destruction of the red corpuscles) the red colouring matter of the blood becomes diffused in the plasma. He proves this by transfusing defibrinated blood heated to above 70 deg. Cent. (158 deg. Fahr.), as well as that of previously burned animals. The diffused colouring matter is chiefly excreted by the kidneys in the urine, as is evident from examination of the urine and kidneys. The excretion begins about an hour after the burning, and may continue as long as two days. On *post mortem* examination, extravasations of blood were discovered in various organs, and in the kidneys large collections of blood-colouring matter, especially within the convoluted tubes, pigment-granules between the epithelium, hyaline cylinders, etc. On the ground of previous, as well as some more recent, experiments, Lesser discusses the possible causes of death; and, after eliminating numerous possibilities, advances the theory that a relatively too large number of red discs (through separation of the blood-colouring matter and consecutive damage) become fully developed, so that a sufficient quantity of blood for the completion of the respiratory processes necessary for the prolongation of life is no longer furnished, and, as a consequence, paralysis of the respiratory and circulatory centres ensues.

Lesser thinks that the injurious effects of burns on the general system depend neither on the thickness and capacity for resistance of the skin, the extent of the burned region, nor on the intensity or length of the operation; but that for seriousness of the burns it is necessary that the circulation should be kept up in the burned parts, and that new masses of blood should constantly stream through the heated skin and muscles; the longer this is continued, so much the greater being the number of red corpuscles robbed of their vitality. At a later period, death may result from septicæmia.

Lesser speaks strongly in favour of the method of treatment already recommended by Ponfick for severe burns; viz., transfusion, in addition to local antiseptic treatment, and is of opinion that transfusion may still be useful at a later period, if the patient do not recover his strength.

G. H. MAKINS.

PAYNE AND OTHERS ON THE PHYSIOLOGICAL ACTION AND THERAPEUTIC USES OF THE COMMON MISTLETOE.

THE mistletoe was held in the highest estimation by the Druids; regarding it as the most sacred thing in nature, they showed their reverence for it by giving it the place of prominence in all their mystic rites, and no profane hand touched the sacred plant, which was severed from the bough on which it grew only by the golden knife held in the consecrated hands of the priest, the ceremony being accompanied by sacrifice and many holy observances. In modern times, it has been associated with the very pleasant custom, which allows young men the sweet privilege of kissing the maiden who may be caught standing beneath the mistletoe bough at Christmas tide. Of late, however, it has been robbed of many of its pleasant associations, and has fallen into the hands of the physiologists and therapeutists, who have extracted its active principle, and injected it into frogs, and have even suggested that it might be used as a vermifuge.

Dr. Lee Payne, jun., has recently published a paper (*North Carolina Med. Jour.*, May 1881) on the physiological action of mistletoe, which deserves at least a passing notice. In England we have only one indigenous species, the *viscum album*, but in the States the *viscum flavescens* grows abundantly, and is parasitic on almost every elm, oak, black-gum, and persimmon tree. The leaves of our common mistletoe are lanceolate or spatulate, obtuse, and entire, whilst those of viscum flavescens are obovate, or oval and fleshy. Mistletoe has been analysed by Gaspard, Funcke, Winckler, Macaire, and Reinsch, and has been found to contain mucilage, sugar, an odorous principle, a fixed oil, traces of tannin, resin,

and various salts. Its active principle is *viscin*, also known as birdlime, or more correctly birdglue, from the German *Vogelleim*. It is insoluble in water, alcohol, and fixed oils, but dissolves in ether and oil of turpentine. It is said by some that viscin is in reality a product of fermentation.

Mistletoe has long been used as a remedy for epilepsy, chorea, and neuralgia; but, according to Stillé and Maisch, its action is uncertain, and its virtues are doubtful. In 1851, Dr. Turnipseed, of South Carolina, called attention to its ecbolic action, but his observations have long been forgotten. In 1878, Dr. Long published a paper in the *Louisville Medical News*, in which he alleged that it is superior to ergot, on the ground that it acts with more promptness and certainty; and that, instead of producing a continuous or tonic contraction of the uterus, it induces an intermittent action, analogous to that of natural labour. A few cases of poisoning by the berries have been recorded, from which it would appear that it causes vomiting and great thirst, with diarrhœa, tenesmus, and blood-stained motions.

Dr. Lee Payne, as the result of his investigations, is satisfied that mistletoe is a valuable addition to our list of remedies. He employs a liquid extract of the whole plant, made according to the directions of the *U. S. Pharmacopœia* for the preparation of fluid extracts, one part of the extract representing two of the plant. His observations were conducted on frogs and on warm-blooded animals. In addition to being an irritant of the gastro-intestinal mucous membrane, he finds that in frogs it retards the heart's action; increasing the duration of the diastole, and the strength of the systole. In warm-blooded animals, it not only increases the strength of the heart's beat, but also its frequency. It lessens reflex action, and is said to paralyse the motor and sensory nerves. Given internally to dogs, it dilates the pupil. The experiments are given in detail, but they are too few and too imperfect to be of much value. Dr. Payne has given the liquid extract with benefit in five cases of uterine inertia, the dose being from half a drachm to a drachm. He also employs a decoction—two ounces to the pint—and of this the dose is two tablespoonfuls every six hours. It has also been used in hæmoptysis, with, it is said, good results.

WILLIAM MURRELL, M.D.

MANN ON THE THERAPEUTICS OF INSANITY.

DR. EDWARD C. MANN, of New York, in an article published in the *New York Med. Jour.* for June 1881, states that, respecting the therapeutics of diseases of the mind, he regards it as good practice to give five to ten grains of calomel to begin treatment, followed by salines, which prepare the system for whatever after-treatment is indicated. For an overworked business man, on the verge of insanity, whose whole system is probably disordered, in whom anxiety has caused loss of appetite and inability to sleep, and in whom the integrity of the nervous system has been gradually deteriorating for some time; as well as for patients whose conduct and conversation are beginning to attract attention—such an initial treatment, followed by the administration of thirty grains of bromide of sodium and thirty drops of tincture of cannabis indica thrice daily, with warm baths at bed-time, cold affusions to the head, and galvanisation of the brain (which latter controls the cerebral congestion), will be followed by prompt and gratifying recoveries. Many such patients are far better in their own homes, treated by this plan, than when carried away from home to an asylum.

Dr. Mann does not at all underrate the good work done at asylums, but contends that he can cure a patient in his own home, in the beginning of insanity, or by taking him into his own family, in a much shorter time than by the use of precisely the same means when the patient was subjected to the depressing idea that he was in an asylum, where there were patients, perhaps, in the same ward, who had been and would be there for years. In acute mania he is inclined to think that either opium or morphia increases excitement, and that hyoscyamin is a great deal better. Where there is exhaustive mania, with high excitement and cerebral anæmia, wine or brandy he has always found to be the best calmative and soporific. He always gives it with a carminative, so that the patient may not know what he or she is taking. Food must be given regularly and systematically, to support strength and prevent exhaustion. A pulse of 150 will come down to 80 under this stimulative treatment in exhaustive mania, and a quiet, refreshing sleep and a good recovery will result. He thinks chloral-hydrate should be used very carefully, and never gives more than fifteen grains at a dose, generally combining it with sodium bromide and hyoscyamus, repeating at intervals of two hours until the desired effect is produced. Nurses have to be very carefully watched, lest, in caring for patients suffering from melancholia, they neglect to prevent the refusal of such food as is really needed for the support of the patient. The author does not believe in slops for food in mental disease, but wants his patients to have positive food —milk, eggs, beefsteak, lamb, and well-cooked vegetables and fruits. *Rest* and *nourishment* are his two main reliances, and if we add to these two a third, namely, *sleep*, we can, he thinks, by judicious treatment cure any curable case of insanity. There are cases in which the camisole, a soft canvas jacket, which is all the restraint ever necessary in any case, is temporarily needed; but this should never be entrusted to the option of a nurse.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1. CAUSSIDOU.—On the Treatment of Typhoid Fever by Salicylate of Soda. (*Revue de Therap.*, May 1881.)
2. ILJINSKY.—On the Merits of Hospital Kwass. (*Ibid.*, Nos. 6 and 7.)
3. ROZZOLO.—Doliarin as a Remedy for Ankylostomum Dubini.
4. MURRELL, W.—On Nitre-Paper in Asthma (*Brit. Med. Jour.*, June 1881, p. 918.)
5. CHARTERIS, M.—On the Constitutional Action of Chrysophanic Acid. (*Lancet*, April 1881, p. 651.)
6. CARTER, WILLIAM.—On Sarsaparilla in Syphilitic Cachexia. (*Practitioner*, May 1881, p. 357.)
7. GRATTAN.—Pilocarpin as an Antidote to Belladonna (*Lancet*, June 1880, p. 251.)
8. CAMPBELL, W. MACFIE.—On Belladonna in the Sickness of Pregnancy.
9. COGHILL, Dr. J. G. SINCLAIR.—On Antiseptic Inhalations in Pulmonary Affections. (*Brit. Med. Jour.*, May 1881, p. 841.)
10. RINGER, SIDNEY.—On the Influence of Ammonia in Chloroform Poisoning. (*Practitioner*, June 1881, p. 437.)

11. PAGGI, ADOLFO.—On the Treatment of Chloroform Poisoning by Application of Heat to the Præcordial Region. (*Lancet*, June 1881, p. 1,015.)

12. HUDSON, JAMES.—On Physostigma as an Antidote to Belladonna. (*Brit. Med. Jour.*, June 1881, p. 918.)

13. KINGZETT, C. T.—On Oxidised Oil of Turpentine as a New Antiseptic. (*Lancet*, June 1881, p. 971.)

14. NETHERCLIFT, W. H.—On Hamamelis Virginica in Hæmorrhoids and Intractable Ulcers.

15. MICKLE, W. J.—On Morphia in Melancholia. (*Practitioner*, June 1881, p. 430.)

16. DOLAN, THOMAS M., and WOOD.—Experimental Inquiry into Human Milk and the Effects of Drugs during Lactation in either Nurse or Nursling. (*Practitioner*, Feb. *et seq.*, 1881.)

17. Iodised Cod-Liver Oil. (*Archives Méd. Belges*, Jan. 1881.)

18. FERNET.—A Method of Introducing Food and Medicine by the Nostrils. (*Revue de Thérap.*)

19. LAWRENCE.—Iodide of Ethyl in Asthma. (*New York Med. Jour.*, June 1881.)

20. VIDAL'S Lotion for Diphtheria. (*La Presse Méd.*, May 1881.)

21. EISNER'S Improved Diachylon Ointment. (*Philadelphia Times*, May 7, 1881.)

22. ROLLINS.—On Mouth-Washes in Illness. (*Boston Med. and Surg. Jour.*, April 1881.)

23. DA COSTA.—The Hypodermic use of Iron in Chlorosis. (*New York Med. Gaz.*)

24. DABNEY, J. S.—On the Use of Apocynum Cannabinum in Anasarca. (*New Orleans Med. and Surg. Jour.*; and *Chicago Med. Review.*)

25. SAINT-PHILIPPE.—On the Neuralgic Character of Certain Forms of Angina, and their Treatment by Sulphate of Quinine. (*Jour. de Méd. de Bordeaux*, March 20, 1881, p. 371.)

26. BOSSE.—On Turpentine in Diphtheria. (*Berl. Klin. Woch.*, 1881, No. 9.)

27. LASKIEWICZ.—On the Treatment of Epilepsy. (*Przeglad lekarsk*, Nos. 4 and 6, 1881; *Centralblatt für Nervenheilkunde*, 1881, No. 6.)

28. WILLIAMS, H. D.—Wood Betony in Atonic Dyspepsia. (*Therap. Gaz.*, June 1881.)

29. HARPER, H. WINSTON.—On Rhus Aromatica or the Fragrant Sumach. (*The Canadian Pharm. Jour.*, June 1881, p. 342.)

30. MILLER, CHARLES H.—Decoction of Flax-Seed in the Treatment of Phthisis. (*Therap. Gaz.*, June 1881.)

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1. *Caussidou on the Treatment of Typhoid Fever by Salicylate of Soda.*—M. Caussidou made a communication to the meeting of the French Association for the Advancement of Science at the Congress of Algiers, which was based on thirty-two cases of typhoid fever treated by salicylate of soda, and in which the rise of the temperature and the influence of this drug on the febrile process had been registered with the greatest care, as attested by numerous tracings shown by the writer. M. Caussidou arrived at the conclusion, in opposition to the facts observed in several wards of the Paris hospitals, that salicylated medication gives larger, more certain, and more permanent effects than refrigeration. M. Caussidou has even been in doubt if, by administering salicylate of soda from the outset of typhoid fever, it would not be possible to limit the duration of the disease to the first week (?), and if, at least, it would not be possible to obtain a number of cases belonging to the abortive form. Nevertheless, M. Caussidou does not conceal the dangers of salicylate medication. Like other observers, he has noted dyspnœa, precordial trouble, and exhaustion in patients where the salicylate of soda have brought on a too sudden apyrexia. To avoid these objectionable results, he proposes to administer salicylate of soda in fractional doses of one gramme given every two hours, and to stop so soon as the temperature falls below 38 Cent. (100.4 Fahr.) In a complicated case of erysipelas, the salicylic medication was powerless to produce a febrile recrudescence brought on by this complication. M. Hérard declared that he had nothing but commendation for the use of antiseptics, such as carbolic and salicylic acids, in the treatment of febrile diseases.

2. *Iljinsky on the Merits of Hospital Kwass.*—This, an old popular Russian drink, is included in the obligatory diet of the military hospitals in that country, being given out (in full diet) in allowances nearly one litre. Iljinsky, at the request of his senior medical officer, undertook the task of overlooking the preparation of the beverage, and daily analysing it as to its contents of acids, alcohol, and extractive matter. For the preparation of 5,496.161 litres (80 eimers), the following ingredients are made use of:—Barley malt, 104.950 litres (4 tschetwerik); rye malt, 1,638.4 to 4,095.10 grammes (4 to 10 Russian pounds); rye meal, 24,570.60 grammes (60 Russian pounds); yeast, nearly ¾ of a litre (¾ of a 'krug'); peppermint, 2,047.55 grammes (5 Russian pounds); wheat meal, 819.2 grammes (2 Russian pounds). When brewed under observation, the specific gravity was 1012 to 1021, although formerly it was only 1004 to 1006, and Dr. Georgievski gives 1006 to 1007 as the average specific gravity of kwass. Hence it appears that in general 70 per cent. of the officially determined quantities of ingredients are, for economical reasons, not used. The analysis showed it to contain a series of valuable nutritive constituents, thus: lactic acid (according to Preyer a nerve-sedative), acetic acid (a thirst-quencher), and, further, alcohol and carbonic acid, both of which hinder tissue change, and thus, to a certain extent, lower the temperature. The day's hospital ration of kwass contains: albuminates, 5.5 grammes; carbon hydrates, 33.0 grammes. The merits of the drink may be thus summed up: it excites appetite, acts both on the nervous system and on tissue-change, and is to a certain extent nourishing. When it is rapidly cooled after boiling, as is done with beer, a beverage resembling stout, but of more nutritive value, is obtained. G. H. MAKINS.

3. *Rozzolo on Doliarin as a Remedy for Ankylostomum Dubini.*—Doliarin is a crystalline substance extracted from a plant native to Brazil, the *Urostigma doliarium* or *Ficus doliaria*. The juice of this plant is used there as a remedy against a disease which seems to result, like the severe anæmia of the Gothard tunnel workers, from the ankylostomum Dubini. In any case, Dr. Rozzolo has found it the most useful remedy against this parasite, although he does not deny that extract of male fern has been very successful in other hands than his.

JAMES ANDERSON, M.D.

4. *Murrell on Nitre Paper in Asthma.*—Dr. William Murrell (*Brit. Med. Jour.*, June 1881, p. 918) bears testimony to the great value of the fumes of nitre-paper, if properly prepared, in many cases of asthma. Pieces of white blotting-paper, six inches square, are saturated in a hot concentrated solution of chlorate and nitrate of potash. Six of these pieces are laid one over the other, so as to form a thick tablet. Before quite dry, the pieces of paper may be individually sprinkled with Friar's balsam, camphor, or some other aromatic. When used, the tablet is to be folded like a book-cover, and placed on its edges on a plate, and then lighted.

5. *Charteris on the Constitutional Action of Chrysophanic Acid.*—In the *Lancet*, April 1881,

p. 651, Dr. M. Charteris gives the notes of cases of general psoriasis, in which chrysophanic acid was freely rubbed on one side of the body only, precautions being taken to prevent any of the acid touching the opposite side. In each case the disease was perfectly cured. Dr. Charteris ventures upon no speculation as to how the acid may act if given internally. [Dr. Charteris's paper was called forth by a discussion that had previously been carried on in the *Lancet*, pp. 524, 563, 646, relative to a case under Dr. Crocker's care, in which one half of the body had been treated with chrysophanic acid, and the other half with oil of turpentine, and in which the cure was equally rapid; some of the writers attributing this result to the turpentine being of equal value with the acid, others to the fact that the acid was absorbed, and affected the opposite side by its constitutional action. In considering this question, before the actual results of giving chrysophanic acid either hypodermically or internally are known, it would be well to bear in mind the observations of M. Dumontpallier, as to the effect of hypodermic injections on the opposite side of the body to the seat of pain. This observer found that acupuncture of the sound knee quickly relieved the pain of the inflamed knee of the same patient. *Vide* LONDON MEDICAL RECORD, March 1881, p. 92.—*Rep.*]

6. *Carter on Sarsaparilla in Syphilitic Cachexia.*—Dr. William Carter records, in the *Practitioner*, May 1881, p. 357, two cases that will tend to rescue sarsaparilla from the neglect into which it has fallen of late years in the treatment of syphilitic cachexia. One man, who appeared on the point of death, after failure of all other remedies, quickly recovered on a pint of sarsaparilla a day. In a seaman, aged 41, the beneficial effects of the same treatment were also much marked.

7. *Grattan on Pilocarpin as an Antidote to Belladonna.*—Mr. Nicholas Grattan, in the *Lancet*, June 1880, p. 951, reports a case of belladonna-poisoning successfully treated by four doses of pilocarpin, one-fifth of a grain each, injected subcutaneously.

8. *Campbell on Belladonna in Sickness of Pregnancy.*—Dr. W. Macfie Campbell speaks highly of the efficacy of belladonna in repeated small doses, in sickness attending pregnancy; cases having yielded, in Dr. Campbell's hands, to this drug, that had resisted many other modes of treatment. [The value of belladonna in such cases has been long known.—*Vide Medical Digest*, Sections 858 3.—*Rep.*]

9. *Coghill on Antiseptic Inhalations in Pulmonary Affections.*—Dr. J. G. Sinclair Coghill, in the *Brit. Med. Jour.*, May 1881, p. 841, has an interesting paper upon the value of antiseptic inhalations in all lung affections characterised by purulent expectoration. By this means we are enabled to dispense with cough-mixtures by arresting the secretion of the sputa; for, if sputa exist, cough must necessarily follow, and it is dangerous to arrest the cough under such circumstances. Dr. G. Coghill finds the following formula good: ℞ Tincturæ iodi etherealis, acid carbolici, āā ℥ij; creasoti vel thymoli, ℥j; spiritûs vini rect., ad ℥j; M. If the cough be urgent, or breathing embarrassed, chloroform or sulphuric ether may be added at discretion. The mode of inhaling is most important. The patient should be carefully instructed to inspire through the mouth alone, and expire through the nose, as, by this means, the medicated air is forced into the remoter air-cells.

10. *Ringer on Influence of Ammonia in Chloroform Poisoning.*—Dr. Sidney Ringer, in a paper published in the *Practitioner*, June 1881, p. 437, shows, by experiments, the rapid influence ammonia exerted in a frog's heart, whose action had been arrested by an overdose of chloroform. The chloroform evidently paralyses the heart's muscular substance, affecting the ganglionless and nerveless portion of the ventricle exactly in the same way as any other part of it. [In the *Medical Times and Gazette*, May 1871, p. 616, Dr. Neild reports a case of apparent death from chloroform inhalation, which recovered from the alarming state of syncope after four half-drachm injections of liquor ammoniæ into the median cephalic vein.—*Rep.*]

11. *Paggi on Resuscitation in Chloroform Poisoning by Application of Heat to the Præcordial Region.*—Dr. Adolfo Paggi (*Lancet*, June 1881, p. 1015) refers to a case that occurred in his practice while assisting Dr. Labbé, when a patient, under chloroform, ceased to breathe. Artificial respiration and other means, after ten minutes, failed to produce any effect. Dr. Labbé then took a towel, dipped in boiling water, and laid it over the heart. Instantly the pulse and respiration returned. [In the LONDON MEDICAL RECORD, January 1881, p. 15, Jago's plan of percussing the heart in such cases is noted; and, at p. 57, Dr. Reid's method of giving a hot douche, from a height, to the cardiac region in cases of syncope.—*Rep.*]

12. *Hudson on Physostigma as an Antidote to Belladonna.*—Mr. James Hudson, in the *Brit. Med. Jour.*, June 1881, p. 918, reports a case of belladonna poisoning successfully treated by physostigma, injected subcutaneously. Eight hours after the poison was taken the patient was perfectly unconscious, notwithstanding active treatment. In five minutes after the injection he looked round in a surprised manner, and, in five minutes more, was quite himself again.

13. *Kingzett on Oxidised Oil of Turpentine as a New Antiseptic.*—Mr. C. T. Kingzett, in the *Lancet*, June 1881, p. 971, brings forward the oil of turpentine, through which air has been passed for a prolonged period, as a valuable antiseptic agent, being at the same time much cheaper than oil of eucalyptus and more intensely antiseptic than this drug, besides being free from all the objections that attend the use of this agent. Mr. Lister is making trial of the oxidised oil of turpentine, the result of which the profession will await with interest.

14. *Netherclift on Hamamelis Virginica in Hæmorrhoids and Intractable Ulcers.*—Mr. W. H. Netherclift advocates the local uses of a solution of the new extract, 'hazeline', in cases of irritable and inflamed piles, and also in chronic ulcers of the varicose and eczematous description. The success that has attended the use of the extract, in Mr. Netherclift's practice, has been most gratifying.

15. *Mickle on Morphia in Melancholia.*—Dr. W. J. Mickle, in the *Practitioner*, June 1881, p. 430, again enforces the value of morphia in cases of melancholia, which he has on several previous occasions brought before the notice of the profession (*Brit. Med. Jour.*, Oct. 11, 1873). The object of the present paper is chiefly to show the influence small doses of morphia exert on the pulse and temperature, slightly raising the latter without materially affecting the former.

16. *Dolan and Wood on an Experimental Inquiry into Human Milk, and the Effects of Drugs during Lactation on either Nurse or Nursling.*—Mr. Thomas M. Dolan and Mr. W. H. Wood commence, at p. 85 of the *Practitioner*, for 1881, a series of interesting papers on the above subject, undertaken by

Mr. Dolan in order to answer the frequent question, 'Will my medicine have any effect upon the child?' That medicines and foods do affect the milk, and consequently the child, is certain. Frequently, as Mr. Dolan shows, a wet-nurse, on her first arrival, causes the child to thrive; but soon all becomes changed, because, from a laborious out-door life, with few luxuries, the woman is surrounded with good living, and has very little exercise, and consequently her milk ceases to nourish the child. Cause her to resume, as near as possible, her former mode of life and food, then her nursling quickly recovers. A clear description of the best method to analyse human milk is then given, which is, however, too long for insertion, and cannot be condensed. The practical outcome of these elaborate papers is summed up at page 337. 1. All therapeutical agents intended to act on the mammary gland must first enter the blood. 2. All drugs derived from the natural orders, liliaceæ, cruciferæ, solanaceæ, umbelliferæ, etc., enter the blood and impregnate the milk; hence caution is needed in giving such drugs to nursing women. 3. The only approach to a true galactagogue is jaborandi. 4. Belladonna is an antigalactagogue. 5. In inaction of the mammæ, the milk may be increased and influenced by medicines. 6. The milk of the mother may be increased in heat-forming elements by the administration of fats. 7. The salts of milk may be improved by the administration of medicines. 8. Various physiological actions—purgative, alterative, diuretic, etc., may be produced in the child by administering drugs to the mother. 9. If we are to expect any improvement in milk-secreting power, both as to quantity and to quality, we must look to diet for the attainment of that object.

RICHARD NEALE, M.D.

6. *Iodised Cod-liver Oil.*—It has been found that the addition of iodoform and essence of aniseed will mask the unpleasant odour of cod-liver oil. M. Fonssagrives (*Arch. Méd. Belges*, Jan. 1881) uses the following mixture; 100 grammes of cod-liver oil to one-fourth of a gramme of iodoform; to this twenty-five drops of essential oil of aniseed are added. In this simple way the taste and odour of the oil are masked. Moreover, the iodoform is generally a serviceable adjuvant in cases where the oil is indicated.

18. *Fernet's Method of Introducing Food and Medicine by the Nostrils.*—M. Fernet (*Revue de Thérap.*) wishes to popularise the method of introducing liquid or semi-solid elements, and certain drugs, by the nostrils. The author has seen it employed successfully in newly born infants, too weak to take the breast or milk from a spoon. He proceeds as follows. The patient being laid on his back, a little raised, the end of a spoon or, better, the spout of a close vessel, is brought near to one nostril, and its contents are poured in gently at intervals. The liquid slides over the floor of the nasal fossæ and the roof of the palate, and reaches the pharynx, where it induces movements of regular deglutition. If the operation be well done, the liquid never returns by the other nostril. This method may be applied in certain cases of apoplectic coma, when the patient cannot drink for three or four days successively, in the tuberculous meningitis of children, etc.

19. *Lawrence on Iodide of Ethyl in Asthma.*—The *New York Med. Jour.* for June 1881, publishes three cases of asthma treated with inhalations of iodide of ethyl, with remarkable benefit. They occurred in Dr. R. M. Lawrence's service at the Boston Dispensary. Following the cases are some remarks by Dr. Lawrence, in which he says of the iodide of ethyl: 'Its speedy absorption into the blood, its antispasmodic quality, and prompt reflex stimulation of the respiratory muscles, may reasonably account for its beneficial action in the asthmatic paroxysm, while its power of liquefying and detaching accumulations of mucus sufficiently explains its curative influence in chronic bronchitis. . . . Experience has confirmed my faith in its remedial worth in a large majority of cases of laboured respiration (whether due to bronchial spasm or to increased mucous secretion), and also in certain obstinate cases of dyspnœa, not due to organic pulmonary or cardiac lesions, where other remedies may have proved inefficient. In a small minority of cases it has failed to afford relief.' He does not recommend it as a substitute for internal medication, but rather as an adjunct.

20. *Vidal's Lotion for Diphtheria.*—The following formula is given in *La Presse Méd.*, May 1881. Take 10 grammes of tartaric acid; 25 grammes of hydrolate of peppermint; 15 grammes of pure glycerine; allow them to dissolve. With a brush steeped in this lotion, the diphtheritic patches are touched every three hours. They become reduced to a diffluent pulpy mass, which is afterwards easily removed. In the interval of the application of the tartaric acid, the false membranes are touched with lemon juice. An internal stimulating treatment is prescribed, with substantial and nourishing food.

21. *Eisner's Improved Diachylon Ointment.*—Having experienced much difficulty in preparing and also in keeping diachylon ointment made according to Hebra's direction, Eisner, after considerable experimenting, has arrived at the following formula (*Philadelphia Times*, May 7, 1881), which furnishes an ointment containing a definite amount of oxide of lead, which, with the use of litharge, cannot be estimated. One part of freshly precipitated (from acetate of lead) pure white hydrated-oxide of lead is rubbed with two parts of water, and mixed well with six parts of the best Lucca olive-oil. It should be stirred for about two hours, over a hot-water bath near the boiling-point, and cooled with constant stirring until the proper consistence is obtained. While cooling, a drachm of oil of lavender to the half-pound of ointment is added. This ointment, according to Prof. Eisner, contains the oleostearate of lead, has a neutral reaction, and can be kept in good condition for some time. It is a smooth, whitish, elegant preparation, and is altogether more desirable than that made according to the original formula.

22. *Rollins on Mouth-Washes in Illness.*—As, in acute prostrating diseases, the patient is too weak to brush the teeth, reliance is to be placed in the frequent use of a mouth-wash. Nor will any difficulty be found in this, as even in severe prostration the muscles about the mouth remain strong. As examples of mouth-washes, the following are given. The use of carbolic acid alone, or in combination with an alkali, can seldom be resorted to, because patients associate it with unpleasant places. Benzoic acid, thymol, eucalyptus oil, or boracic acid answers the purpose, and some one of them is generally agreeable to the patient. 1. R—Sodæ boratis, 15 grammes; thymol, 200 milligrammes; aquæ, 1,000 grammes, M.; 2. R—Sodæ boratis, 15 grammes; olei eucalypti, 2 grammes; magnesiæ carbonatis, 4 grammes, M. Rub the oil with the magnesia, add

the water gradually, having dissolved the borax in it, then filter and mark the filtrate 'Mouth wash'. The patient should hold the wash in the mouth for at least a minute, forcing it constantly in and out through the spaces between the teeth, to bring the fluid into contact with the points of decay, changing their reaction from acid to alkaline, and washing out the *débris* collected about the necks of the teeth, and in the spaces between them.

23. *Da Costa on the Use of Iron Hypodermically in Chlorosis.*—Dr. J. M. Da Costa, in a lecture on chlorosis, reported in the *New York Med. Gazette*, says, in speaking of a patient whom he was showing to the class: 'Her rapid improvement is altogether due, I think, to a new remedy which I am employing in a very novel manner. I refer to the rapid introduction of iron into the girl's system, by means of the hypodermic syringe.' Heretofore it has been attempted to introduce iron by this means into the system, but all preparations have proved too irritating. Dialysed iron is neutral and non-irritating, and is followed neither by costiveness nor by disordered digestion. Dr. Da Costa used the iron diluted at first, but later pure, in the dose of fifteen minims daily. This was finally increased to thirty minims, and the patient showed wonderful improvement, the venous murmurs disappearing, the digestion becoming good, and the menstrual flow, which had been absent for several months, appearing regularly again. Dr. Da Costa thinks that the hypodermic use of iron should be retried in pernicious anæmia, the cause of its previous failure being the great disturbances which have attended its use.

24. *Dabney on Apocynum Cannabinum in Anasarca.*—Dr. J. S. Dabney (*New Orleans Med. and Surg. Jour.*, February 1881, and *Chicago Med. Review*) has found, he alleges, that apocynum cannabinum is one of the best diuretics and hydragogue cathartics that can be employed in Bright's disease, as it causes not only marked diminution of the anasarca, but also decrease of the albumen and casts. He claims for it certain advantages. First, a small quantity only is necessary to produce diuresis, emesis, or catharsis. Second, it has an agreeable aromatic taste. Third, it has tonic properties. Fourth, it is harmless, free emesis resulting on an overdose. While many of these claims seem rather strained, still there appears to be but little doubt that the remedy is of much value in ascites, anasarca, and allied conditions.

25. *Saint-Philippe on the Neuralgic Character of Certain Forms of Angina, and their Treatment by Sulphate of Quinine.*—Dr. R. Saint-Philippe, surgeon to the Bordeaux hospitals, points out a certain number of cases of angina observed by him, and characterised by intermittent symptoms, so that the patient scarcely suffers at all in the morning, and is the victim of intolerable pain in the evening (*Jour. de Méd. de Bordeaux*, 20 Mars 1881, p. 371). These forms of angina, which Dr. Saint-Philippe is inclined to refer to neuralgia of the median branch of the trigeminus, are amenable to treatment by sulphate of quinine. He prescribes from 40 to 50 centigrammes (6 to 7½ grains) two hours before the attack, and obtains cure. M. Marotte published analogous cases, in 1874, in the *Bulletin de Thérapeutique*.

26. *Bosse on Turpentine in Diphtheria.*— Dr. Bosse (*Berlin Klin. Wochenschrift*, 1881, No. 9) illustrates this method by several cases. Of the pure oil of turpentine, an adult requires one large spoonful a day; children from six to twelve years, two-thirds of the same; children from one to two years, half of a large spoonful. The tolerance of this medicine is greater than might be expected. Out of eleven cases, only four vomited; if rejected, the dose must be repeated after some hours. Generally, alvine evacuations follow, which possess a penetrating odour of turpentine. After these, the general symptoms, such as fever and headache, cease. There is a rapid recovery; patients, who on the previous day took a spoonful of oil, already recovering the day after, or two days at the most, at least as regards the clearing of the throat, and the disappearance of the exudation. They would die only when assistance was rendered too late; *i.e.*, on the sixth or eighth day. Dr. Bosse attributes this effect of the oil of turpentine to its containing ozone. He denies that it has a caustic effect in swallowing, and mentions Naunyn's example, who (1868) in order to try the physiological effect of this remedy, took in company with his three assistant-surgeons, 300 grammes of turpentine at one dose, 100 grammes thus coming to the share of each, no pain, except a slight headache was experienced by these experimenters; neither albuminuria nor strangury followed.

27. *Laskiewicz on the Treatment of Epilepsy.*— Dr. Laskiewicz (*Przeglad lekarsk.*, Nos. 4 and 6, 1881, *Centralblatt für Nervenheilkunde*, 1881, No. 6) commences the treatment of epileptic patients with bromide of potassium, of which a solution of one gramme is best given in the evening. As often as the attacks are repeated, the dose is increased one gramme daily, until 20, 25, and even 30 grammes are reached. The author mentions a case in which as much as 60 grammes per day was given for some time. This remedy is very differently tolerated. The largest dose which has had an effect is to be continued for months and years, and then diminished with great care. Probably, the patient will then be free from future attacks. If the remedy be not tolerated, atropine must take its place. This it is best to give as an alcoholic solution: 8 centigrammes of sulphate of atropine in 20 grammes of alcohol; this to be kept well closed in a glass. The dose is increased from one to ten drops, the largest dose for adults being twelve drops per day. It will be best to give it in milk or soup, about one hour before or after breakfast. The alkaloids of coffee, cocoa, or tea, diminish the effect of atropine.

28. *Williams on Wood Betony in Atonic Dyspepsia.*—Dr. Williams (*Therapeutic Gazette*, June 1881) reports three cases of atonic dyspepsia, in which, he considers, benefit resulted from the administration of fluid extract of wood betony, in half-drachm doses. Dr. Williams is evidently not an adept at therapeutic experimentation. His first case proves nothing, for the patient, in addition to the wood betony, was ordered 'a good, nutritious diet, containing a fair allowance of fats; or, or in the absence of this, cod-liver oil'. The improvement was gradual at first, but during the third and fourth weeks he gained considerably in weight, as might be expected from an improved diet and cod-liver oil. The second patient was a masturbator, and suffered from 'complete loss of manhood', in addition to dyspepsia. Dr. Williams gave him betony and cascara sagrada, with, subsequently, phosphates and calisaya. At the end of five months he had regained his virile power, and was discharged cured. The third case is that of a married woman, aged 56, who for five or six years had suffered from indigestion, palpitation, and 'flatulence of the stomach and intestines'. Dr. Williams diagnosed atonic dyspepsia, and prescribed the following:—R. Fluid ext. wood

betony, ʒii; fluid ext. chionanthus virg; fluid ext. ladies' slipper, āā ʒi; one half-drachm before meals. The improvement, we are told, was immediate and rapid. [Wood betony is probably a valuable remedy, and is undoubtedly worthy of a more extended trial; but Dr. Williams' paper is practically worthless, and his advocacy is more likely to do harm than good. For some account of the supposed virtues of betony, see *British Medical Journal*, April 2nd and 9th, 1881.—*Rep.*]

29. *Harper on Rhus Aromatica, or the Fragrant Sumach.*—This plant, says Mr. Harper (*The Canadian Pharm. Jour.*, June 1881, p. 342), belongs to the anacardiaceæ, and is popularly known as the sweet sumach, stink bush, or skunk bush. It is a small shrub, growing in dry rocky soil, hedges, and thickets, in most parts of Canada and the United States. In height it varies from three to six feet; it is usually erect, sometimes decumbent, branching, and glabrous. The bark, which alone is used in medicine, is in quills, one to four inches in length, from one-sixth to one-half inch in diameter, and from one-twentieth to half an inch thick. The outer surface varies in colour, from light to dark brown, and is marked with corky protuberances and transverse fissures. When the layer of cork is removed, the outer bark is seen to be of an orange-red colour, longitudinally wrinkled, and transversely fissured. The inner surface is whitish, or flesh-coloured and striated. The bark is brittle, and breaks with a somewhat granular fracture, yielding an ochre-coloured powder, and has a distinct, rather pleasant, odour, and an astringent, aromatic, slightly bitter taste. Rhus aromatica was introduced as a medicine in 1878, but has as yet attracted but little attention. It is said to be 'highly useful in the treatment of diabetes, enuresis, hæmaturia, uterine hæmorrhages, menorrhagia, and other excessive discharges, accompanied by a relaxed condition of the uterus'. The best preparation is a tincture made by macerating four ounces of the dried bark in strong spirit for seven days, and then percolating until it measures a pint. The dose is from twenty minims to a teaspoonful three times a day. A decoction of the bark has been found useful as a topical application to control hæmorrhage. [Some months ago, Dr. Mc Clanahan published, in an American journal, an account of this drug, stating that he considered it one of the most valuable medicines ever introduced to the profession. It had for many years been successfully employed by his grandfather, Dr. John Gray, in the treatment of diabetes, and it was said to answer equally well in diabetes mellitus, and diabetes insipidus. Rhus toxicodendron, the sumach or poison oak, rhus radicans, the poison ivy or vine, and rhus venenata, the poison-wood or ash, have long been used in medicine, having been introduced about the year 1798, by Dufresnoy, a physician of Valenciennes. The rhus toxicodendron was for a time officinal in the *London Pharmacopœia.—Rep.*]

30. *Miller on Decoction of Flax-Seed in the Treatment of Phthisis.—Apropos* of Dr. Blackerby's article on linseed oil, as a specific for phthisis (LONDON MEDICAL RECORD, June 1881), Dr. Miller records a case in which great benefit was derived from a decoction of the seed. The patient is now 73 years of age, and says that about fifty years ago, when quite a young man, he was seized with hæmorrhage from the lungs, after prolonged exposure to intense cold, during an unusually severe winter. The bleeding lasted, off and on, for nearly a week, and reduced him considerably. After this he suffered from cough, with profuse offensive expectoration, night-sweats, loss of appetite, and great weakness. He consulted several physicians, all of whom told him that he was suffering from phthisis. He took a great deal of medicine, but nothing did him much good. At last he was advised to try a decoction of flax-seed. It was made by boiling a handful of the seeds contained in a muslin bag in water, until it became frothy and syrupy in consistence. After being allowed to cool, it was strained, and sufficient honey and old brandy were added to make it palatable. It was taken at irregular intervals, several times a day, in doses of a table-spoonful or more at a time, sometimes alone, and sometimes with sage-tea or mutton broth. The patient rapidly improved on the treatment, and in the course of a month the night-sweating had almost disappeared, the appetite had improved, and the expectoration was much less. His strength improved so much that he was enabled to take comparatively long walks, which in the autumn were extended to the woods and mountains adjacent to his village home, amongst the invigorating pines and the mountain streams. It was more than two years, however, before his health was re-established. For the last forty years he has been well and strong, has had no return of the chest symptoms; and now, on the verge of four-score, is a rugged specimen of his race. [The story is well told, and is well worth reading. The addition of lemon-juice to the linseed-tea might be an advantage]. WILLIAM MURRELL, M.D.

MEDICINE.

RECENT PAPERS.

1. SHEPHERD, F. A. J.—On Vaccination Revived. (*Lancet*, June 1881, p. 978.)

2. BOWLES, ROBERT.—On Stertorous Breathing in Apoplexy. (May 1881, p. 845.)

3. RIX, W. K.—On Desquamation following Scarlatina. (*Lancet*, June 1881, p. 938.)

4. DUNCAN, W. A.—On the value of Early and Repeated Paracentesis in the Ascites due to Cirrhosis. (*Brit. Med. Jour.*, June 1881, p. 879.)

5. ANREP.—On Peripheral Temperature in Lung-Diseases. (*Verhandl. der Physik Med. Gesellsch. für Wurz.*, Band xiv, Heft 1, 2.)

6. SEIFERT.—Trigeminal Neuralgia. (*Berlin. Klin. Woch*, 1881, No. 11.)

7. SCHREIBER.—The Symptomatology of Mediastinal Tumours. (*Deutsch. Archiv für Klin. Med.*, Band xxvii.)

8. GUYOT, FRANCISQUE.—On Ainhum. (*Le Progrès Méd.*, 1881.)

11. FRAENTZEL.—On severe Cases of Typhoid Fever which run a very acute course without, or with very little rise of Temperature. (*Zeitschr. für Klin. Med.*, Band ii, s. 217.)

12. BERG.—On Diphtheria. (*Wratsch*, Nos. 49 and 51, 1880.)

13. BERNHARDT.—Tabes Dorsalis. (Virchow's *Archiv*, Band lxxxiv.)

14. EBR.—Spinal Myosis and Reflex Pupillary Rigidity. (*Centralbl. für die Med. Wiss.*, No. 17, 1881.)

15. MAURIAC and VIGOUROUX.—On the Magnet, Statical Electricity, and the Tuning Fork in Pseudo-Syphilitic Paralysis. (*Le Progrès Méd.*, 1881, Nos. 19, 21, and 22.)

16. RUNEBERG, J. W.—On Progressive Pernicious Anæmia. (*Deutsches Archiv für Klin. Medicin*, Band xxviii.)

1. *Shepherd on Vaccination Revived.*—Mr. F. A. J. Shepherd, in the *Lancet*, June 1881, p. 978, reports a case of a nurse whom he vaccinated, on the right arm, unsuccessfully, in four places, four years ago. Lately he again vaccinated her on the left arm in four places, producing one well marked vaccine pustule. In a few days the four places on the right arm threw out distinct areolæ, and showed tolerably characteristic marks of successful revaccination. [In the *Med. Times and Gaz.*, Oct. 1861, p. 442, a case of Mr. Byerly developed the pustules two months after vaccination. A case is mentioned by Sir Thomas Watson in the same journal, Dec. 1877, p. 621, of a girl who was vaccinated when an infant, and in whom the spots became again well developed pustules, during an attack of influenza, fourteen years subsequently. Such cases support Sir Thomas Watson's theory that the virus of rabies, etc., may remain lodged in a spot, shut up in a nodule of lymph, or detained somehow in temporary and precarious union with some of the animal tissues, without entering the blood itself, for a longer or shorter time—in some cases, perhaps, never.—*Rep.*]

2. *Bowles on Stertorous Breathing in Apoplexy.*—In the *Brit. Med. Jour.* May 1881, p. 845, Dr. Robert Bowles again draws attention to the great value of position in relieving one of the most distressing and dangerous conditions of the apoplectic state, namely stertor. [Previous papers may be consulted, *Med. Times and Gaz.*, Jan. 1860, p. 126; *Lancet*, June 1870, p. 875, Dec. 1880, pp. 971, 1018.] If a patient with an attack of apoplexy be laid on the side paralysed, immediately the stertor ceases, from the fact that the tongue falls on one side, allowing free ingress of air to the lung on the sound side, which is better able to carry on its functions. The cerebral circulation on the diseased side is also, by this plan, relieved from all hypostatic congestion, and this may have a material effect in relieving the urgent symptoms. Dr. Bowles distinguishes several kinds of stertor: palatine, pharyngeal, mucous, nasal, laryngeal, and buccal stertor. Nasal stertor is readily removed by mechanically dilating the paralysed nares. It is the pharyngeal form of stertor that so seriously aggravates the symptoms, adding suffocation to the apoplectic phenomena; and on removal of this symptom, by the simple act of change of position, the change from certain death to life is frequently obtained.

3. *Rix on Desquamation following Scarlatina.*—In the *Lancet*, June 1881, p. 938, Mr. W. K. Rix, of the Fever Hospital, Bradford, states that in cases of fever, attended with intensely bright scarlet rash and high temperature, the desquamation may be completed in thirty days; that the great majority of cases, however, require from sixty to seventy-two days before they are fit to be discharged. In many cases, after nine weeks' quarantine, it is extremely doubtful whether the old thick skin from the heels has quite fallen off. That the dead skin from scarlatinal patients does carry infection, there appears to be little doubt; but that other factors are at work also appears certain, for frequently patients have been discharged, after all evidence of desquamation had long disappeared, the hair had been cut short, the clothes all changed, and every precaution possible taken to avoid infection, yet fresh cases have occurred within a week of the patient mixing with his brothers and sisters.

4. *Duncan on the Value of Early and Repeated Paracentesis in the Ascites due to Cirrhosis of the Liver.*—Dr. W. A. Duncan, in the *Brit. Med. Jour.*, June 1881, p. 879, reports a case of a gentleman, aged 46, who came under treatment for ascites, and in whom paracentesis was performed eighteen times within a year, making a complete recovery. A valuable summary of the opinion of authorities upon the subject concludes a very instructive paper. [At section 1000–2 of the *Medical Digest* many remarkable cases of a similar nature are noted.—*Rep.*]

RICHARD NEALE, M.D.

5. *Anrep on Peripheral Temperatures in Lung-Diseases.*—The author's observations were made on fifty cases of lung-disease, with a specially constructed thermometer, which may be described as an ordinary clinical thermometer in which the bulb has been flattened out horizontally, and is protected from draughts by a glass bell springing from the sides of the tube below the index. With two such instruments accurately compared beforehand, he observed (*Verhandl. der Physik. Med. Gesellsch. in Würzburg*, Band xiv, Heft 1, 2) the temperature on opposite sides of the thorax of healthy individuals. He found the average to be about 96.3 deg. Fahr.; but the temperatures were very rarely the same, the difference varying from 0.2 deg. Fahr. to 0.5 deg. Fahr., sometimes on the one side, sometimes on the other. The cases of lung-disease observed were pleurisy, croupous pneumonia, and chronic catarrhal pneumonia. In pleurisy the cutaneous temperature of the affected side (thermometer in an intercostal space) is higher than the axillary temperature of the opposite side, and the highest temperature corresponds to the time of most rapid effusion. The cutaneous temperature of the opposite side is also slightly raised. In pleurisy without effusion, the rise of cutaneous temperature is neither so great nor so long continued. In cases of croupous pneumonia, the difference between the two sides amounted to as much as 2.7 deg. Fahr.; and from the tables given by Dr. Anrep it can be seen that those parts of the lung in the first stage of inflammation, before crepitation has appeared, give a higher temperature than those completely solidified. In chronic catarrhal pneumonia, the cutaneous temperatures closely agree with the local progress of the disease; and in one case fully recorded the rapid rise of temperature over the apex, followed by a fall as the symptoms of a large cavern developed themselves, is very striking, more especially as the temperature over the cavern continued lower than all the rest of the chest. The author believes that the observation of cutaneous temperatures is, even at present, of practical value; and when the clinical thermometers now in use are replaced by thermomultipliers, we shall be able to derive from it most valuable information.

JAMES ANDERSON, M.D.

6. *Seifert on Trigeminal Neuralgia.*—Dr. Seifert (*Berlin. Klin. Wochensch.*, 1881, No. 11) publishes three cases of trigeminal neuralgia, in which he successfully employed compression of the carotid, as recommended by Gerhardt. The compression was made to last from 15 seconds to 1½ minutes, and repeated as often as the pain was interrupted, while arsenic and quinine were likewise administered. Gradually, the intervals were lengthened.

7. *Schreiber on the Symptomatology of Mediastinal Tumours.*—A. Schreiber (*Deutches Archiv für Klin. Med.*, Band xxvii, s. 52, *Central. für die Med. Wiss.*, No. 17, 1881) bases his remarks on four cases observed in Ziemssen's clinic. 1. A girl, aged 21, complained for some months of palpitation and breathlessness. There were physical signs of left-sided pleuritic effusion; later on, a peculiar dulness de-

veloped, which began at the right costal cartilages and ran across the sternum to the left anterior axillary line, then downwards and backwards, and finally, horizontally to the spine. The pleura was punctured many times with temporary benefit. There were then some difficulty in swallowing, and slight right-sided pleuritic effusion. There was a fibro-sarcomatous tumour as large as a man's head. 2. A baker, aged 17, complained for eight days of cough, pain in the chest, and loss of appetite. The expression of his face was anxious, the skin was yellowish, the veins of the neck were distended. He had a barking cough. There were paralysis of the right vocal chords, and multiple swollen lymphatic glands. He had slight fever. Later on there was increased glandular swelling, especially along the lower border of the pectoralis major. He had increasing breathlessness. There was dulness above the heart, reaching up to the clavicle and to the axillary line. Section showed a round-celled sarcoma of the anterior mediastinum, with numerous metastases which pressed on the vena cava and recurrent nerve. 3. This case was that of a woman, aged 35, with diffuse fibro-sarcoma of the mediastinum, which led to metastases in the lungs, and to closure of the vena cava and subclavian vein. 4. A peasant, aged 31, had been ill 8½ years. He was breathless and had swollen veins on the thorax. There was a resistant tumour in the left supraclavicular region. He had œdema of the face. There was protrusion of sternum and superior thoracic region. There was absolutely empty note over the whole sternum and along the right sternal border. The dulness was limited to the left by a line drawn from the attachment of the third rib, outwards and downwards to a centimètre outside the nipple.

8. *Guyot on Ainhum.*—Dr. Francis Guyot (*Le Prog. Méd.*, 1881, No. 19) gives a description of this peculiar tropical disease, and adds four cases observed by himself. It is met with in North Africa, in Southern India, Central America, and some of the Pacific Islands. It affects generally the fifth toe, but sometimes the fourth, and more rarely many or all the fingers and toes. The chief symptom is an annular groove round the affected member, deeper on the palmar or plantar surface, growing deeper as it advances until amputation results. The surface of the fissure is normal; sometimes it is bathed in serous fluid, sometimes the segment above the fissure becomes swollen. In some cases the tissues of the stump are normal, more often atrophied or undergoing fatty degeneration, but preserve a healthy nucleus. There is neither inflammation, constitutional reaction, nor pain. It lasts often many years. It has no ultimate bad effects on the general health. The negroes attribute it to a parasite, but there is no evidence in favour of this view. Females do not escape. Consanguinity probably plays some part. No treatment is of use, though Da Silva Lima cured one case by an incision at right angles to the groove.

9. *Schiller on a Case of Catalepsy with Speech-reflexes.*—Schiller (*Bres. Aertzl. Zeit.*, 1880, No. 21, and *Central. für die Med. Wiss.*, 1881, No. 17) reports the case of a previously healthy girl, aged 10 years, who became suddenly unconscious; the night before she had complained of stomach-ache, which had disappeared in the morning. The limbs could be moulded into any positions, and, in spite of their inconvenience, retained these for some time, and then gradually sank down again. Stroking from below upwards in the umbilical region made the child give a peculiar cry, which was not caused by deeper and sharper pressure on the same place. Also touching a place close to the manubrium sterni caused a peculiar cry. Strong electrical stimulation (the electric brush) and a vinegar enema, cured her after the lapse of one hour and a half. On other days, there were symptoms of commencing chorea in the facial muscles and fingers, which afterwards disappeared. The child has remained quite well for more than six months since the attack, of which she retains no recollection.

10. *Senator on Pneumothorax and Empyema.*—H. Senator (*Zeit. für Klin. Med.*, Band ii, s. 231) brings forward four cases to disprove the current opinion that fluid effused in the course of a pneumothorax must be purulent. He insists on the frequency of bilateral pleurisy in unilateral pneumothorax, and the occurrence of late pericarditis in cases of pneumothorax. When exudation takes place in pneumothorax due to internal injury of the lung, the fluid seldom putrefies in spite of the free access of air. He urges the point, overlooked in the text-books, that pleuritic effusion in children is generally purulent. With regard to the treatment of pneumothorax he lays down these rules. 1. If only air be present, no good can be done by operative interference. 2. If fluid be also present, the fluid should be tapped, not the air. 3. If the fluid be putrid, an incision must be made. Aspiration is indicated with serous or purulent exudations in phthisical patients. He recommends that the pus should be diluted by the injecting of an indifferent fluid, so that it will run better through a fine trocar, and what is left behind will be more easily absorbed. He avoids disinfecting the pleural cavity or emptying it completely.

11. *Frântzel on Typhoid Fever with Low Temperature.*—Frântzel (*Zeit. für Klin. Med.*, Band ii, s. 217) describes severe cases of typhoid fever which attack exhausted individuals, and which run their course with low temperature or without fever, but in which occur general collapse, serious cerebral symptoms, and tendency to gangrene of the extremities, which run a strikingly acute course. Such cases indicate that high temperature is not the only cause of death in typhoid fever, but that cerebral symptoms are of great importance, and that patients even with low temperature must be carefully watched, to preserve them from the many evil consequences of even quiet delirium. ROBERT SAUNDBY, M.D.

12. *Berg on Diphtheria.*—In this paper (*Wratsch*, Nos. 49 and 51, 1880), Berg makes some remarks on 192 cases treated, in part in the Ambulance, in part within the Children's Hospital at Charkow. A small number of observations are of especial value from this source, since little work has been published concerning the epidemics of diphtheria in Southern Russia, and because the cases were treated in hospital, and hence could be more carefully watched. The epidemic broke out towards the end of 1878, and continued throughout 1879. The interesting observation was made, that the number of cases always increased after a great change of temperature. Infection was usually the result of direct contact, but in one case infection was conveyed by a third person, who himself remained well. Of the patients treated in the hospital, 41 per cent. died, this large mortality depending on the fact that a great number of them were in a hopeless condition when first seen. The majority of the children were between two and eight years of age, the percentage mortality decreasing as the age rose. Berg divides

the cases clinically into two classes.—1. *Slight form.* Recovery took place after four to six days, the temperature never rising above 102.7. The membrane spread equally in all directions, healing progressing from periphery to centre. The membrane was yellowish-white in colour, easily detached, and odourless. The submaxillary glands were always swollen. 2. *Severe form.* The temperature rose to 103.2. The membrane was usually distributed bilaterally, of a dirty tint, stinking, and rapidly invading the larynx. In the majority of the cases, death occurred in five to seven days from paralysis of the heart. The invasion of the larynx often resulted from the swollen and elongated uvula coming into contact with the root of the tongue and epiglottis, and so spreading the process. In two cases hæmorrhages took place beneath the skin, and in one case there was subcutaneous emphysema in the neck. The treatment chiefly consisted in painting with a 10 to 15 per cent. solution of chloride of iron in glycerine, and the use of a 5 per cent. gargle of chlorinated potass. Other drugs were tried (in three cases benzoate of soda) without good results. Pilocarpin was not tried. G. H. MAKINS.

13. *Bernhardt on Tabes Dorsalis.*—Dr. M. Bernhardt of Berlin (Virchow's *Archiv*, Band lxxxiv, Heft 1) gives the following percentages of the frequency of symptoms in 58 cases of demonstrated tabes dorsalis: loss of patellar reflex, 95.6; ataxy, 94.1; staggering with eyes shut, 90.2; sensation of weariness on slight exertion, 92.0; alterations of sensibility, 85.9; lancinating pains, 79.5; vesical troubles, 74.7; rigid pupils, 48.4; impotence, 43.7; double vision, 39.6; delayed transmission of pain, 34.37; analgesia, 31.6; myosis, 27.2; atrophy of the optic nerve, 10.3. He failed to observe the coincidence, stated by Fischer, of delayed pain, vesical troubles, and absent patellar reflex. He found no constant relation between the tendon and skin-reflexes. He did not observe the polyæsthesia (feeling double or more when touched with one point of the æsthesiometer) described by Fischer. He doubts Müller's statement that joint-affections occur early in the disease; he has seen two or three cases. He doubts the frequency of aortic insufficiency alleged by Berger, Rosenbach, Letulle, Parrot, and thinks we should wait for the fact to be proved *post mortem.*

14. *Erb on Spinal Myosis and Reflex Pupillary Rigidity.*—Prof. W. Erb (*Centralbl. für die Med. Wiss.*, No. 17, 1881) has found that, out of 84 cases of tabes dorsalis, 59 had absolute reflex pupillary rigidity, 12 showed very feeble and low reaction to light, and in 13 the reaction was normal. In 5 cases this symptom was unilateral, in 7 there was more or less advanced atrophy of the optic nerve. Out of the 71 cases in which more or less rigidity was present, 37 had distinct myosis, 34 had normally wide pupils, sometimes unequal. Myosis was absent in quite half the cases. Of the 71 cases, 43 were in the initial stage; in the remaining 28 the ataxy was already manifest. These symptoms may therefore appear quite early in the disease, or, on the other hand, be absent after it has existed for years; a closer connection between syphilis and pupillary rigidity appears not to exist in tabes. Out of 16 cases of progressive cerebral paralysis, he found the pupils only twice normal; in 10 they were unequal, but of these only 3 showed rigidity; in 4 cases there was myosis combined with rigidity. All this holds good also of the earlier stages of the disease. Very much more often were pupillary differences observed, 10 times in 16 cases; the reflex rigidity, on the other hand, only 7 times (once unilaterally). This symptom was also noticed several times in other diseases (anæmia, syphilis, tumours); in myosis after disease of the cervical sympathetic, the reaction to light is generally preserved, as well as in lesions of the cervical part of the spinal cord. Myosis and rigidity do not appear to occur together in healthy persons; in uncomplicated senile myosis, the reaction to light is unaffected. They must therefore be regarded separately. Respecting the former, it is most probable that the pupil-dilating centre, or its tract in the spinal cord or in the cervical sympathetic, is paralysed; the rigidity, on the other hand, seems to be due to some change in the reflex arc, which lies between the centres of the optic nerve and the third nerve. Further observations, by irritation of the peripheral cutaneous nerves, showed that not only was there paralysis of the reflex contraction of the pupil, but also of the reflex dilatation, so that the expression 'reflex rigidity' is doubly correct.

ROBERT SAUNDBY, M.D.

15. *Mauriac and Vigouroux on the Magnet, Statical Electricity, and the Tuning-Fork, in Pseudo-Syphilitic Paralysis.*—Drs. Ch. Mauriac and R. Vigouroux (*Le Progrès Méd.*, 1881, Nos. 19, 21, and 22) have published two examples of what they describe as a rare form of nervous disorder occurring during the course of syphilis, but of which it is difficult to determine exactly what part syphilis plays in their determination. The first case was that of a man, a haircutter, aged 22, who had chancres, followed by roseola, crusts on the scalp, sore mouth, with headache, fever, and night-sweats. After treatment for two months he was discharged cured, but soon returned with a painful tumour over the inner aspect of the arm, along the inner border of the triceps; under large doses of iodide of potassium this rapidly disappeared, but the limb became anæsthetic, with loss of motor power, and preservation of normal electrical reactions. This did not improve under iodide; but the application of a magnet caused headache, and complete transfer of the anæsthesia and paralysis to the sound arm; repeated applications cured these for a time, but he relapsed after a few days. Statical electricity, repeated three times, produced no effect but slight numbness of the fingers and dorsum of the hand. By introducing the sound hand into the resounding box of a large tuning-fork (ut 3), transfer of the affection was effected, and at the same time there was produced hemianæsthesia of the sound side, with loss of taste, smell, hearing, diminution of the field of vision and visual acuity, and complete colour-blindness; in every respect this resembled hysterical hemianæsthesia. By the following day the phenomena had changed sides, even the artificially induced hemianæsthesia having become transfered. By repeated applications, a cure was effected: the patient went home, relapsed again, was put on iodide of potassium, and after taking it for some time, got well suddenly, and has remained well. The second case was that of a man, aged 40, who denied all venereal antecedents, and the diagnosis of constitutional syphilis rested on the presence of a fissured and atrophied tongue. He had been epileptic when young, and his mother suffered from the same disorder. After suffering from diffuse superficial headache, worse at night, he became hemianæsthetic, the anæsthesia affecting the special senses, with some loss of power in the lower extremity. The magnet and tuning-fork caused malaise and insomnia, but had no influence on the neurosis. Statical electricity caused transfer, and cured him

after twenty sittings of forty to forty-five minutes each. The authors admit that the evidence of syphilis was not clear, but the lesion of the tongue was regarded as syphilitic, both at the Hôtel-Dieu and at St. Louis. The phenomena were not those of ordinary syphilitic paralysis, yet a localised lesion in the posterior part of the internal capsule would be capable of giving rise to these symptoms. The early epileptiform attacks in the first case, and the existence of hystero-epilepsy in the mother of the second, indicate that in both there was a predisposition to nervous affections. The inefficacy of ordinary antisyphilitic remedies is opposed to the notion that these symptoms depended directly on syphilitic lesions; but syphilis probably played the part of an exciting cause.

16. *Runeberg on Progressive Pernicious Anæmia.*—Professor J. W. Runeberg, of Helsingfors (reprint from *Deutsches Archiv für Klin. Med.* Band xxviii), has published nine cases of so-called progressive pernicious anæmia, in five of which death occurred, and necropsies were performed. He found it to be the rule in his cases for remissions to take place, and the histories of his patients show several temporary recoveries. A predisposition to anæmia seemed to exist in most of the individuals. He points out that in John Mason Good's *Study of Medicine*, published in 1829, he describes a form of anæmia, and publishes in full a case of Dr. Combes' of Edinburgh, which leaves little to be desired to complete the clinical picture of pernicious anæmia. He also quotes a case by Prof. Ilmoni, from the third volume of the *Transactions of the Finnish Medical Society for* 1845. For some reason's these early descriptions were unnoticed; and at the time that Biermer reawakened our interest in the study of the disease, its very existence was denied by leading authorities, such as Niemeyer.

ROBERT SAUNDBY, M.D.

SURGERY.

RECENT PAPERS.

1. LANGENBUCH.—On the Use of Antiseptics in Lithotomy. (*Archiv für Klin. Chir.*, Band xxvi, Heft 1.)

2. VON NUSSBAUM.—Enterotomy, Gastrotomy, and Drainage of the Liver.

3. THOMAS, T. G.—Ovarian Tumour treated by Incision and Drainage. (*New York Med. Jour.*, June 1881.)

4. JERSEY.—So-called Rupture of the Internal Lateral Ligament of the Knee-Joint. (*Ibid.*)

5. ROCKWELL.—Electricity in the Treatment of Exophthalmic Goître. (*Ibid.*)

6. BERGER and ONIMUS.—Treatment of Hæmatic Cysts of the Thyroid Gland by Electrolysis. (*Bull. Gén. de Thérap.*, May 15.)

7. WILL, J. C. OGILVIE.—On the Catheter Treatment of Perineal Fistula. (*Lancet*, June 1881.)

8. SCHENCK, P. V.—On One Hundred and Ten Cases of Emmet's Operation. (*St. Louis Cour. of Med. and Col. Science.*)

9. PREWITT, T. F.—On Gastrotomy in Stricture of the Œsophagus. (*Ibid.*)

10. GOULD.—Oil of Eucalyptus as an Antiseptic in Listerism. (*Lancet*, May, 1881.)

11. RUSSELL, G.—On Removal of a Wine-Bottle from the Rectum. (*Brit. Med. Journ.*, May 1881, p. 848.)

12. GREENE, CHAS. H., and MACPHAIL.—On Simple Methods of Reducing Dislocated Shoulder. (*Lancet*, May 1881, pp. 769, 876.)

13. REEVES, H. A.—On a New Method of Treating Rectal Fistulæ. (*Brit. Med. Jour.*, June 1881, p. 917.)

14. GRIFFIN, F. C. J.—On Treatment of Compound Fractures and Wounds of Joints by Glycerine and Carbolic Acid. (*Lancet*, June 1881, p. 985.)

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1. *Langenbuch on the use of Antiseptics in Lithotomy.*—Dr. Langenbuch, in a paper (*Archiv für Klin. Chir.*, Band xxvi, Heft 1) in which he very strongly advocates suprapubic lithotomy in preference to every other method of removing vesical calculi, describes a plan devised by him for the removal of exceedingly large calculi. After the bladder has been distended with water, and 400 to 600 grammes of water have been introduced into an India-rubber bag placed in the rectum, a horizontal incision, eight to ten centimètres in length, is made along the upper border of the symphysis, at right angles to the middle line of the body. The soft parts are separated from the anterior margin of the pelvis down to the bladder, the anterior wall of which and the para-vesical pouch of peritoneum, are laid bare. The latter is divided to the same extent as the cutaneous incision. Each end of the cutaneous incision is now carried upwards for two or three centimètres, so that a U-shaped flap of the entire thickness of the abdominal wall is raised. This flap is displaced backwards, posteriorly to the vertex of the bladder, and fastened in this position by sutures (which are not passed through the entire thickness of the vesical wall). In this manner a new closed peritoneal fold, some centimètres higher than the normal, is established in five to eight days: in consequence of its more posterior position, it is much less exposed to injury during the removal of large calculi. The further treatment is identical with that adopted in the usual suprapubic operation.

2. *Von Nussbaum on Enterotomy, Gastrotomy, and Drainage of the Liver.*—In an address given before the Munich District Medical Society, Nussbaum dilates enthusiastically upon the advances made in the region of laparotomy, since its special dangers have been recognised and we have learned to avoid them, and especially dwells on enterotomy and gastrotomy. By enterotomy, he means the operation recommended by Maisonneuve and Fengel for cases of ileus, in which, an incision being made in the right iliac fossa, the gut is opened above the seat of obstruction without regard to the nature or exact situation of the obstacle. The operation, in itself an easy one, is, when antiseptic precautions are taken, not at all dangerous. The importance of Max Müller's proposal to draw the parietal peritoneum over the wound in the abdominal parietes is dwelt upon. The collected results of enterotomy are, up to the present, so favourable that a surgeon, who allows his patient to perish from obstruction of the bowels without resorting to it, lays himself open to grave reproach. He views, with particular pleasure, the most recent advances in gastrotomy, especially in cases of stricture of the œsophagus (which, introduced in 1846 by Sedillot, met with no success until Verneuil's case in 1876). Adverting to Czerny's experiment on animals, he states that for more than a year he had been in hopes of operating for cancer of the stomach (during which time, indeed, the operation has been carried out); and concludes with the narration of a case in which he performed laparotomy, under the idea that a tumour of the pylorus existed. On opening the abdomen, however, a nodule in the liver (apparently the result of a gunshot injury) was discovered, and, this being incised and drained from the bottom, the patient made a

good recovery, with entire relief from pain in the nodule, from which he had suffered before the operation. G. H. MAKINS.

3. *Thomas on Ovarian Tumour Treated by Incision and Drainage.*—In the *New York Med. Jour.* for June 1881, Dr. T. Gaillard Thomas relates the case of a lady, on whom two attempts had been made to extirpate a large ovarian tumour, which attempts were abandoned on account of the extensive adhesions encountered and the profuse hæmorrhage that took place. The patient's health became very much depreciated, and on several occasions she passed into a state of collapse, and was thought by her physician to be dying. She now entered Dr. Thomas's private hospital, where, after vain endeavours to improve her condition by great care and thorough drainage (a drainage-tube having been inserted by the surgeon who first attempted the removal of the tumour, and the opening still persisting), Dr. Thomas cut directly down upon the tumour, and, without opening the peritoneum, tried to enucleate it. There was such great hæmorrhage, however, and the sac was so universally attached, that he gave it up, and cut directly into the mass, when a large amount of colloid fluid escaped. Carrying his hand into it, he found a large number of sacs, each about the size of a cocoa-nut, filled with fluid, which he broke up. One existed almost outside of the large tumour, and it was into that that the India-rubber tube had been inserted by the surgeon, and pus withdrawn. He opened this thoroughly, exercising care that none of its contents should enter the peritoneum. Two glass drainage-tubes were then inserted, one above and one below, in Douglas's cul-de-sac, through which carbolised water could be injected. The patient was placed upon the most nutritious diet, and injections of carbolised water were employed. The tumour diminished in size until it was not larger than the head of a child at birth; and one month after the operation she left the hospital, with instructions to keep up the injections of carbolised water. A month later she appeared to be perfectly well, a cyst of the size of a goose's egg still remaining, which she drained with perfect ease.

4. *Jersey on so-called Rupture of the Internal Lateral Ligamant of the Knee-Joint.*—In a thesis submitted for graduation at the College of Physicians and Surgeons, New York, and published in the *New York Med. Jour.* for June 1881, Dr. Charles A. Jersey questions the existence of the condition known under the name of rupture of the internal lateral ligament of the knee-joint, and expresses his opinion, on the strength of clinical observations and experiments on the cadaver (the latter having been performed in the prosector's room at the college, under the direction of Dr. William T. Bull), that the injury in question really consists in a fracture of the tuberosity into which the ligament is inserted. He sums up his conclusions as follows. 1. Many cases of so-called rupture of the internal lateral ligament of the knee-joint are in reality cases of fracture of the internal tuberosity of the condyle. 2. Many of the more severe sprains are fractures of the tuberosity. 3. The absence of bony crepitus is no certain sign of the non-existence of fracture at this part. 4. The diagnosis rests upon the extreme lateral motion, the severity of the pain on manipulation, the localised pain always found at a certain point, and the length of time required for complete recovery.

5. *Rockwell on Electricity in the Treatment of Exophthalmic Goître.*—In the *New York Med. Jour.* for June 1881, Dr. A. D. Rockwell alludes to eight cases of exophthalmic goître previously recorded by him as having been treated with electricity—three ending in recovery, and one in approximate recovery—and gives the history of an additional case in which the result was favourable. This method may be thus described. The cathode is placed over the cilio-spinal centre, above the seventh cervical vertebra, and the anode in the auriculo-maxillary fossa, gradually drawing the latter (after a few moments of stabile treatment) along the inner border of the sterno-cleido-mastoideus muscle, to its lower extremity. The second step in this process consists in removing the anode to the position occupied by the cathode, and placing the latter over the solar plexus, using for a few moments longer a greatly increased strength of current. In other cases, currents alternately increased and diminished may prove most effective. The general application of the faradaic current sometimes proves an important factor in the method of treatment. It is not very difficult to believe, he remarks, nor to understand why, general faradisation is so effective in lowering a pulse that is rapid as a result of nervous excitement, and in increasing its strength when it is both rapid and weak through nervous exhaustion. It is more difficult to explain why this result is so pleasantly obtainable in cases of exophthalmic goître in which the galvanic current, after benefiting up to a certain point, fails to do more. The faradaic certainly does not affect the sympathetic so directly and powerfully as the galvanic current does; and we are obliged, for an explanation, to refer to its well-known superior tonic properties, and to the fact that the complete and thorough excitation of the cutaneous nerves by general faradisation is followed by a greater and more desirable reflex influence. In a case of over thirty years' standing, which the author recently treated, but in which he failed to cause any appreciable reduction in size, this power of one current to supplement the action of the other was well illustrated. The pulse of the patient was constantly at or above 115. The action of the galvanic current reduced it to 105, but failed to do more than this after considerable effort. General faradisation was then attempted, with the result of effecting within a week a further and seemingly permanent reduction of twelve beats. At the same time the patient's general condition was much improved.

6. *Berger and Onimus on the Treatment of Blood-Cysts of the Thyroid Gland by Electrolysis.*—M. Berger, in the name of M. Onimus and himself, read a communication on this subject at the last meeting of the Paris Société de Chirurgie (*Bull. Gén. de Thér.*, May 15, 1881). A lady had suffered for a year and a half with a tumour on the left side of the thyroid gland, and, latterly, it had rapidly increased in size. The first puncture was almost immediately followed by a relapse. The tumour rapidly became as large as an apple; it was movable, colourless, fluctuating, and already gave rise to disturbances in the action of the air-passages. M. Onimus proposed to treat it by electrolysis. On the 30th January, MM. Berger and Onimus made a puncture, which gave issue to about 150 grammes of a chocolate-coloured liquid. A carbolated injection was then made by the channel; then an injection of a solution of iodide of potassium of ten degrees of strength. There was then introduced into the cystic cavity, filled with this solution, a metallic stem placed in communication with the positive and negative poles of the electric pile, of from 24 to 36 elements, whilst the other pole was

applied on the periphery. There was a little hæmorrhage. In a short time the cavity refilled itself, and the tumour was as large as ever. The day after the operation there was an attack of intermittent fever, which was only one of those diathetic reminders pointed out by M. Verneuil. M. Berger gave up the patient five months ago, being persuaded that it was a bad case. Four weeks ago he discovered that from the size of an apple the tumour had become reduced to that of a nut, and since that time it had decreased in considerable proportion. M. Boinet also related several cases in which he obtained excellent results after puncture, followed by the iodised injection. It was a mistake to believe that the iodised injection was also followed by acute inflammation, for in the cases to which he alluded there was neither inflammation nor suppuration. M. Delens remarked that he could not quite understand the curative action of electrolysis in M. Berger's case. The treatment was complex; there had only been one application. Generally the action of electrolysis was much more slow, and it was necessary to repeat it frequently. M. Desprès pointed out that there were serous cysts with thin walls, which were cured with one simple puncture, and there were others with anfractuous walls, with syrupy and sticky contents, on which treatment was excessively difficult. In fact, in these cases the iodised injection did not succeed better than anything else. M. Le Dentu agreed with the last speaker as to the fact that there were mild cysts, and there were others in which the treatment was very difficult. It was not always easy to ascertain which variety was present. A puncture was made, blood flowed, and sometimes there was great difficulty in arresting the hæmorrhage. The therapeutic treatment should therefore be varied according to the cases in serous cysts. The iodised injection left excellent results in sanguinous cysts. There was often a gangrenous inflammation, which might go on to elimination of the sac. The effect of electrolysis had yet to be determined. M. Berger concluded by owning that he was opposed to iodised injection, but he believed in certain sanguineous cysts electrolysis brought on coagulation.

7. *Will on the Catheter Treatment of Perineal Fistula.*—In the *Lancet*, June 1881, p. 941, Dr. J. C. Ogilvie Will reports two severe cases of perineal fistulæ which were cured by this simple, and easily carried out, procedure. The difficulties that attend retention of a catheter in the bladder are chiefly two: first, the fact that frequently the instrument becomes quickly incrusted with phosphates. This Dr. Will overcame by constantly removing and cleansing the catheter. [In the reporter's practice, a red India-rubber catheter retained for two years or more in a female bladder on no occasion became incrusted with phosphates; it was occasionally expelled or dislodged during sleep or movements, and immediately returned, yet never required cleansing.] The second difficulty is to retain the catheter. This Dr. Will effected by passing an elastic ring over the glans, lodging it in the groove behind, and to this attached the catheter by threads.

8. *Schenck on One Hundred and Ten Cases of Emmet's Operation.*—In the *St. Louis Cour. of Med. and Col. Science*, Dr. P. V. Schenck, in a paper on the results of Emmet's operation, from one hundred and ten cases observed in his own practice, arrives at the conclusion that the operation should be an immediate one. The fatal results of the operation are few. Emmet reports two in 200 cases; Goodell one in 54; Engelmann, Baker, and Marcy each one case. In Dr. Schenck's 110 cases there were no ill results, although the patients were not placed under the preparatory treatment, on which, in the opinion of some authorities, the success of the operation depends. Perfect union was obtained in all but five, and in only two cases did no union take place. Dr. Schenck gives abstracts of eight cases in illustration of the results of the operation.

9. *Prewitt on Gastrostomy in Stricture of the Œsophagus.*—A paper by Dr. T. F. Prewitt on gastrostomy in stricture of the œsophagus will be found in the *St. Louis Cour. of Med. and Col. Science.* It is accompanied by a table of fifty-nine cases. Dr. Prewitt considers the great difference in mortality from the operation in cases of this class, when compared with the same operation for the removal of foreign bodies, to be due to the exhausted condition of the subject. It is his belief that it can be greatly lessened if the operation be performed early. In a large percentage of fatal cases, even though union had taken place, no peritonitis existed, and death was due to exhaustion. Gastric fistula is not incompatible with long life. Of the forty-nine cases tabulated, forty were malignant, twelve cicatricial, three syphilitic, and in four the nature of the stricture was not given, but was almost certainly malignant. Of these cases, operated upon for malignant disease, the patients lived from fourteen days to six months, and one patient is still living comfortably. In the cicatricial variety six recovered, as also one where the stricture was of syphilitic origin. In but seven of the whole number is peritonitis stated to have existed. Exhaustion alone is assigned as the cause of death in the large proportion of cases.

10. *Gould on Oil of Eucalyphus as an Antiseptic in Listerism.*—Before the Clinical Society, Mr. Pearce Gould brought forward the claim of oil of eucalyptus as a valuable substitute for carbolic acid in antiseptic operations (*Lancet*, May 1881, p. 828). Cases occasionally occur, one of which formed the basis of Mr. Gould's paper, in which serious and even fatal results follow from the absorption of the carbolic spray and gauze. Mr. Gould has prepared a gauze that answers all the purpose of Lister's carbolic gauze, that gentleman being among the first to herald the discovery of so fitting a substitute.

11. *Russell on Removal of a Wine-Bottle from the Rectum.*—Mr. G. Russell reports, in the *Brit. Med. Jour.*, May 1881, p. 848, a case that occurred in the hospital practice of Mr. W. Dunnett Spanton, where a man sat on a hock-bottle in order to introduce butter into the rectum to destroy thread-worms; thus sitting, he gradually introduced the whole bottle and could not extract it. After many futile attempts at the hospital to withdraw it per rectum, the descending colon was opened, and the bottle easily withdrawn, death following in eighteen hours. [Had a hole been drilled or punched through the bottom of the bottle, which lay external to the sphincter, might not one or more fingers have been hooked therein, and great extractive force been obtained? Had the force thus obtainable not been sufficient, could not a hooked rod have been passed through the hole over the neck of the bottle? or by filling the bottle, through the hole drilled in its bottom, with plaster-of-Paris, first stuffing the neck with cotton wool, could not a firm handle have been fixed inside, and so all operative interference possibly averted? Many similar modes of action will, doubtless, suggest themselves to our readers.—*Rep.*]

12. *Greene and Macphail on Simple Methods of Reducing Dislocated Shoulder.*—In the *Lancet*, May

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Elastic Socks
Elastic Stockings
Elastic Syringes
Enema Apparatus
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Fracture Apparatus
Fracture Cradles
Fracture Frames
Gynæcological Instruments
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  Cushions
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  Extracting
  Scaling
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1881, pp. 769, 896, the following methods of easily reducing dislocation of the shoulder-joint are described. Mr. Chas. H. Greene directs as follows. 'Take firm hold of the elbow-joint (bent at a right angle) of the affected arm, raise it as nearly to the perpendicular as possible, and keep it there closely pressed against the acromion; next pass two or three fingers of the left hand with their palmar aspects outwards, underneath and behind the head of the bone, which is now pointing directly downwards below and outside the glenoid cavity of the scapula, until they reach the lower edge of the latter, and, having insinuated the fingers in some measure between them, by which means a fulcrum is formed, draw firmly and rapidly down the wrist with a sweep, and the head of the bone glides over the fingers, and slips into its place.' Mr. S. Rutherford Macphail's plan is thus carried out. 'The surgeon stands on the affected side of the patient, grasping the limb (left) in his right hand at the elbow-joint, placing the thumb of his left hand on the dislocated head of the humerus. Abducting the limb from the side, and making a fair amount of extension, he now calls away the attention of the patient from himself so as to relax the muscular system, rotates the limb externally, and aiding reduction by pressure of his thumb on the misplaced head of the bone.' If the limb be the right, then the operator's hands must be transposed.

13. *Reeves on a New Method of Treating Rectal Fistulæ.*—In the *Brit. Med. Jour.*, June 1881, p. 917, Mr. H. A. Reeves suggests that the fistula, after free division and careful vivification of both surfaces by scraping, should be closed by deep sutures. A case, in which this plan was carried out, was rapidly cured without the painful dressings usually employed.

14. *Griffin on Treatment of Compound Fractures and Wounds of Joints by Glycerine and Carbolic Acid.*—Mr. F. C. G. Griffin reports in the *Lancet*, June 1881, p. 985, a series of cases, both of compound fracture and opened joints, in which very satisfactory results followed the use of pads of lint, soaked in the glycerinum acidi carbolici of the British Pharmacopœia, without the use of antiseptic spray or any other elaborate preparation. Mr. Griffin regards it as of much importance not to disturb the layers of lint immediately covering and generally adherent to the wound, until the latter has quite healed.

RICHARD NEALE, M.D.

PATHOLOGY.

RECENT PAPERS.

1. POPOFF, L.—On the Results of Ligature of the Ureters and of the Renal Arteries in Animals in Relation to other Pathological Processes. (Virchow's *Archiv*, Vol. xvii, p. 40.)

2. SOTNITSCHEWSKI. — On the Condition of the Arterioles in Granular Atrophy of the Kidneys. (Virchow's *Archiv*, Vol. xxii, p. 209.)

3. ANREP.—The Cause of Death after Division of the Vagus Nerves in Birds. (*Verhandl der Phys.-Med. Gesellsch. in Würz.*, Band viv, Heft 1 and 2.)

4. TALAMON.—On Hepatic Cirrhosis. (*Revue de Méd*, April 1881.)

5. GOMBAULT.—The part played by Segmental Lesions in the Evolution of Parenchymatous Neuritis. (*Le Prog. Méd.*, No. 17, 1881.)

6. STRUMPELL.—On the Pathology of the Spinal Cord. (*Arch. für Phys., etc.*, x, 3.)

7. HANOT and GOMBAULT.—Absence of Jaundice in Complete Obliteration of the Ductus Choledochus. (*Le Prog. Méd.*, No. 18, 1881.)

8. BURDEL.—The Malarial Poison-Germ. (*Ibid.*)

9. NICATI and RICHAUD.—On the Biliary Cirrhosis of the Domestic Rabbit. (*Arch. de Phys. Normale, etc.*, 1880, No. 3.)

10. TALAMON, C.—On the Diphtheritic Fungus. (*Le Progrès Méd.*, Nos. 7 and 26, 1881.)

11. DEBOVE.—On Chyliform Effusions. (*Le Progrès Méd.*, 1881, No. 23.)

12. STRAUS.—On Amyloid Kidney without Albuminuria. (*Le Progrès Méd.*, 1881, p. 25.)

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1. *Popoff on the Results of Ligature of the Ureters and of the Renal Arteries.*—From what he has observed of pathological changes occurring in animals after ligature of both ureters, or of both renal arteries, Popoff believes that these changes have much in common; so that, if the kidneys (the changes in which after these operations are very different) be left out of count, it would be difficult to find any distinct difference between the two results. The results of these two operations may be given as follows. 1. The animals live in each case about the same length of time. 2. The chief symptom after each operation is the depression of the temperature, which is not here produced by the use of narcotics, since it occurs when they have not been administered. The subnormal temperature becomes more marked as time goes on; but, if only one renal artery be ligatured, the temperature rises again to normal in the course of the following day. 3. Along with this singular temperature, there is frequently to be observed a diminution in the rapidity of the pulse. 4. Vomiting and diarrhœa occur after both operations. 5. A comatose condition ending in complete coma is among the most frequent symptoms. 6. Convulsions, both clonic and tonic, were very often present after ligature of the ureters. Only in one case were convulsions observed after ligature of the renal arteries.

2. *Sotnitschewski on the Condition of the Arteries in Granular Atrophy of the Kidneys.*—The simultaneous occurrence of granular atrophy of the kidneys and hypertrophy of the heart has been long recognised, and while formerly the affection of the heart was considered as secondary, and the change in the kidneys as primary, at the present day, according to this writer, the renal cirrhosis is to be looked upon as produced by a primary affection of the vascular system. On account of the great interest which this question gives rise to, Sotnitschewski was advised by Professor von Recklinghausen to investigate all cases in which chronic interstitial nephritis was found after death. These observations were made upon the condition of the vessels of the pia mater, kidneys, spleen, liver, and lungs. The somewhat limited amount of material at his disposal did not enable the author to draw more than the following conclusions. 1. The changes in the small arteries, though they are present in most cases of interstitial nephritis, are not invariably found in connection with that condition. Out of seventeen cases investigated, arterial changes were absent in two instances, and it is interesting and of importance to observe that both these cases were examples of one variety of kidney affection, namely, glomerulitis. 2. The changes in the smaller arteries were in six instances combined with chronic endoarteritis of the larger vessels, but in six cases the affection of the larger vessels was absent. 3. Hypertrophy of the heart was not evident in three cases out of the seventeen, although in two

these thickening of the coats of the smaller vessels was well marked. These statistics do not, therefore, support the theory that the arterial changes are the result of cardiac hypertrophy.

J. GRAHAM BROWN, M.D.

3. *Anrep on the Cause of Death after Division of the Vagus Nerves in Birds.*—Almost all warm-blooded animals, without exception, die very speedily after division of both vagi. This fact is readily admitted, but, as to the cause of death, there is considerable difference. Traube, Friedländer, and others give, as the cause, a pneumonia consecutive on the paralysis of certain nerve-fibres. But, while pneumonia always occurs in mammals, this is certainly not the case in birds; and Blainville and Billroth assert that division of the vagi has, in birds, no effect on the lungs. Eichhorst has lately shown that in birds no consecutive pneumonia is ever observed, and he has brought forward the view that death from division of the vagi, in warm-blooded animals, is caused by paralysis of the heart from fatty degeneration. This degeneration he attributes to the division of the trophic nerves of the heart, not to the cardiac acceleration following division of the vagus; for, in prolonged atropin poisoning, he observes an equal acceleration, but unaccompanied by fatty degeneration. His experiments were mostly performed on birds, and, except the heart, he found no other organ altered. Dr. Anrep gives (*Verhandl. der Physik-Med. Gesellsch. in Würzburg*, Band xiv, Heft 1 and 2) the results of 21 experiments on pigeons and fowls, with his conclusions therefrom. Immediately, or very soon, after the operation, symptoms of dyspnœa appear, which last, as a rule, for 24 hours, after which the pigeons, more especially, become more cheerful and breathe more easily. The number of respirations sinks, after the operation, from 40 per minute to 10 or even 5; the reduction arising not merely from cessation of respiration, but also from great prolongation of inspiration with short expiration. The respirations rise to twenty, or thereby, per minute, after the first day; but, after five to seven days, the respirations again fall before death. The heart contractions are doubled in frequency, and remain so throughout. Shortly after the operation pigeons begin to pick up food, but no act of swallowing is observed; while fowls, on the other hand, take no food, but make constant attempts at swallowing. Vomiting is a constant symptom, and the gastric secretion is neutral or alkaline. Death was, as a rule, gradual, sudden only in three of the twenty-one cases, and was markedly similar to death from starvation, which similarity was strengthened by the *post mortem* appearances. The lungs were normal or œdematous at the edges. The heart showed more or less fatty degeneration, but never to an extent sufficient to account for death. The liver was atrophic and showed fatty degeneration, as did also the striated muscle of the body and the tissue of the stomach. The crop of pigeons contained numerous grains of corn, the stomach and intestine none. There was no trace of adipose tissue anywhere. Pigeons operated on and fed, and pigeons not operated on and starved, lost weight in equal amounts, although the former had the slight preponderance accounted for by the food found in their crop after death. The starved pigeons lived only forty hours longer than the others, and showed, on *post mortem* examination, precisely the same tissue-changes, the same fatty degeneration of the heart and other organs, the same absence of adipose tissue. Dr. Anrep notes that slight fatty degeneration is present in the hearts of normal pigeons and fowls. His conclusion is that the cause of death, after the division of the vagi in birds, is starvation, and that the fatty degeneration of the heart is the result of the inanition.

JAMES ANDERSON, M.D.

4. *Talamon on Hepatic Cirrhosis.*—From a careful study of three livers from patients who died of mitral disease, M. Ch. Talamon (*Revue de Méd.*, April 1881) has arrived at the following conclusions. 1. In liver-changes attending heart-disease, there is a lesion not secondary to but concomitant with the cardic affection. This is arteritis of the hepatic arterioles, dating probably from the same rheumatic attack as the heart disease. It is natural to attribute to this arteritis cases in which there is only fibroid thickening of the portal spaces with sclerosis. 2. This sclerosis, with that of the central intralobular vein and dilated veins, is the ordinary nutmeg-liver or simplest form of cardiac liver. 3. There is never any production of connective tissue around the central vein. 4. When there is any cirrhosis in cardiac liver it is around the portal ramifications, as in drunkard's liver. 5. There are thus two classes of disease with cardiac maladies—*a.* Concomitant lesions from arteritis; and *b.* Secondary lesions from embarrassment of the hepatic venous system. 6. The multilobular cirrhosis explains certain cases of cardiac ascites without œdema of the lower limbs; cases which derive no benefit from cardiac tonics. 7. A form of jaundice not described by authors is produced, resembling typhoid jaundice. It is due to inflammation of the biliary canals. Sometimes the liver resembles that of yellow atrophy; at others it has sclerosed patches including cell-*débris*.

GEORGE A. GIBSON, M.B.

5. *Gombault on the part played by Segmental Lesions in the Evolution of Parenchymatous Neuritis.*—Dr. Gombault (*Le Progrès Méd.*, No. 17, 1881) says that the characters of parenchymatous neuritis (Charcot) after section of a nerve are these: 1. In the same fibre, the lesion is uniform from the divided point to the peripheral termination of the fibre; 2. The axis-cylinder, rapidly interrupted in its continuity at many points, soon disappears. In certain chronic or subacute affections, M. Gombault has sought (*Arch. de Neurologie*, Nos. 1 and 2) to show the existence of another form having the following characteristics. 1. The lesion is discontinuous, affecting certain interannular segments, and respecting the parts in their intervals. 2. The axis-cylinder is preserved, both in the parts affected, as well as in the healthy portions. This latter segmental affection is met with in certain cases of disease. In two cases, one of acute ascending paralysis, and the other of diphtheritic paralysis, this lesion was demonstrated. In the former, both forms of lesion were equally represented; in the latter, the existence of the first described form was even doubtful. He considers the occurrence of this lesion as a consequence of subacute or chronic cases of spinal disease is more easily explicable, and better accords with our knowledge of the evolution of neuritis. He thinks that it possibly occupies an intermediate position between the healthy condition and the complete type of degeneration. He asks whether it can be regarded as clearly established that it is the lesion in diphtheritic paralysis. In convalescence from severe maladies, typhoid in particular, the nerve-fibres increase in size; and he suggests that this physiological process may occasionally overstep its proper limits, and pass into the segmental lesion.

6. *Strümpell on the Pathology of the Spinal Cord.*—Strümpell (*Arch. für Psych.*, Band x) has published the following cases.—CASE I. *Myelitis Dorsalis, progressing with the Symptoms of Spastic Spinal Paralysis.*—A young man, aged 25, probably in consequence of residing frequently in cold damp places, fell gradually ill with weakness of the legs, increasing rigidity of the muscles, exaggerated tendon-reflex and sensibility, and impaired function of the bladder. There were also frequent spontaneous strong convulsive twitchings in the legs, especially on the left side. The patient died with bed-sores. At the necropsy, Dr. Strümpell found lobular pneumonia of both lower lobes, advanced cystitis, and purulent pyelo-nephritis. The entire dorsal cord was the seat of diffuse myelitis, disease of Goll's columns, specks of grey degeneration in the outer parts of the posterior columns, intense disease of the lateral pyramidal columns, together with the lateral cerebellar tracts, and the anterior mixed lateral column zones. In the anterior columns was degeneration of the anterior, especially of the median border zone; in the anterior horns, were a few ganglion-cells, but numerous spider and granular cells, and striking dilatation of vessels. He thinks the lesion was not diffuse, but disseminated. There was ascending disease of the posterior columns, which formed a broad wedge in the lower cervical region; but, in the upper part, the thin end of this wedge was separated from the posterior gray commissure by a layer of normal tissue, so that the remaining healthy fibres, which had dragged Goll's fibres backwards, were to be observed in this region as short commissural fibres which ran out of the grey matter and back again. They were left uninjured in the upper cervical cord by the deeper position of the lesion, and, not belonging directly to Goll's columns, were not affected by the secondary degeneration. Near the secondary degeneration of Goll's columns, was an ascending degeneration of the lateral cerebellar tracts. The classical disease of the pyramidal lateral tracts passed downwards, but there was also a descending degeneration of the lateral cerebellar tracts, with alteration of the ganglion-cells of Clarke's columns. He thinks that this affection of the entire cerebellar tract is not to be accounted for by extension of the process from the pyramidal tracts, but is better explained by the lesion of the cord setting up an ascending as well as a descending secondary degeneration of the lateral cerebellar tracts. Just below the lesion there was, in the so-called 'bandelettes externes', a small localised degeneration of the posterior columns, as has been often observed, although not yet sufficiently explained. He adds that this case was at first regarded as spastic spinal paralysis, but afterwards recognised as transverse myelitis.—CASE II. *Hydromyelus and Systematic Degeneration of the Lateral Columns: Symptoms of Spastic Spinal Paralysis.*—A merchant, aged 35, had suffered from asthma since the age of five years. Three months after an attack, which occurred in his seventeenth year, he found gradually, that first the right leg, then the arm, finally also the left side of the body, became increasingly feeble; contraction and exaggerated tendon reflex supervened, and these symptoms, without any special alterations of sensibility or function of the bladder, led to a chronic paralysis, with spastic phenomena, and, finally, to a fatal termination. The case was regarded as a classical example of the spastic spinal paralysis of Charcot and Erb. The necropsy showed a great dilatation of the central canal of the spinal cord, commencing in the highest part of the cervical region, and passing down to become only a narrow slit, ending opposite the third lumbar nerve. In the upper dorsal region, a second dilatation lay on the left of that just described, situated between the third and sixth dorsal nerves. There was, amongst other changes, marked degeneration of the pyramidal and cerebellar lateral tracts. In the upper portions, the lateral and anterior columns showed slight degeneration, and the posterior columns, especially in the cervical and lower dorsal regions, were degenerated in patches. The patient had a strong hereditary predisposition to nervous diseases. Dr. Strümpell maintains that the symptoms of spastic spinal paralysis may be produced by diseases of the vertebral column itself. They are often produced by tumours of the cord; by certain modifications of multiple sclerosis of the brain and cord; by peculiar changes, the consequence of typhus fever; finally, by purely cerebral affections—for example, chronic hydrocephalus. He admits the propriety of the term spastic paralysis as a convenient expression for a certain well characterised group of symptoms. There are some cases in which the spasm is so much the more important factor, and the interference with motion is so much due to it, that he suggests for them the name of 'spastic pseudo-paralysis'. He regards it as improbable that disease of the lateral pyramidal columns can give rise to exaggeration of the tendon-reflex; above, all, other lesions of the cord, or, at least, in other systems, may give rise to secondary lesions of the lateral columns.

7. *Hanot and Gombault on Absence of Jaundice in Complete Obliteration of the Ductus Choledochus.*—MM. Hanot and Gombault (*Le Progrès Méd.*, No. 18, 1881), in examining a case of scirrhus of the pylorus, found that the ductus choledochus and cystic ducts were completely obliterated, as well as the hepatic artery and the branches given off by it in the hilus; the obliteration of the portal vein was not complete. There was no trace of jaundice. The suggested explanation is, that the obliteration of the hepatic artery, and great diminution in the calibre of the portal vein, produced such an insufficient supply of blood to the liver, that the amount of bile secreted was too insignificant for its retention to suffice for the production of jaundice. In the discussion which followed, M. Quinquaud said a patient of his own also had complete obliteration of the cystic duct and ductus choledochus, without jaundice.

8. *Burdel on the Malarial Poison-Germ.*—M. Burdel (*Le Progrès Méd.*, No. 18, 1881) has made numerous experiments, at first on sheep, then on himself, and afterwards on other persons, with dew obtained from marshy pools, or water containing microzoa, microspores, filaments, bacilli, etc., obtained from the air over marshes, and never observed any phenomena approaching the symptoms of true intermittent fever. The micro-organisms found in malarious places vary in genera and species, with the places, time of day, and season, in which they are observed.

9. *Nicati and Richaud on the Biliary Cirrhosis of the Domestic Rabbit.*—MM. W. Nicati and A. Richaud (*Arch. de Physiol. Norm.*, etc., 1880, No. 3) say that spontaneous closure of the ductus choledochus is not uncommon in rabbits. The cirrhosis which results is similar to that produced in guinea-pigs by tying the bile-ducts. But the hypertrophy of the liver does not occur, and the white specks in

its substance are absent. In the dilated ducts are sacculated portions containing gregarinæ, which probably find their way in from the intestine, and set up inflammation of the bile-passages. In this way arise catarrh of the ducts, shedding of epithelium, and the formation of a plug by the union of this shed epithelium with the entozoa. The walls of the ducts are filled with embryonal tissue, which is the starting point of a proliferation of tissue throughout the liver; thence the cirrhosis. In other cases, the central veins are the points of departure of this change.

10. *Talamon on the Fungus of Diphtheria.*—Dr. Ch. Talamon (*Le Prog. Méd.*, Nos. 7 and 26, 1881) has described what he supposes to be the specific organism of diphtheria, which differs essentially from the *zygodesmus fuscus*, or *Tilletia Diphtherica* of Letzerich, or the microsporon of Klebs. He found it in the false membranes obtained from the fauces or trachea of eight cases. The mycelium consists of jointed tubes, two to four or five one-thousandths of a millimètre in breadth, which bifurcate in a characteristic manner, the bifurcation resembling a lyre or a tuning-fork. The spores are of two kinds—round or oval, and rectangular. The rounded forms are spores of germination, which, by elongation, form the joints of the mycelium. The rectangular spores are the conidia and are characteristic. They are one to two, up to seven or eight one-thousandths of a millimètre in width, and five to six, up to ten or fifteen-thousandths of a millimètre in length. He inoculated with this fungus a number of animals, all of which died, and the characteristic spores were found in the various cavities of the body. In four pigeons local inoculation of the fungus caused a false membrane in the fauces. Subsequently, he procured a cat with three young kittens, and put them in a basket which had been previously occupied by the rabbits which had died after inoculation. The three kittens all died with purulent nasal catarrh and ophthalmia; the mother cat became ill, coughed, and refused to eat, but recovered. The kittens all showed well marked false membranes in the fauces, pharynx, and larynx, as well as in the trachea and bronchi. These false membranes contained the rectangular spores; the blood was quite free from these organisms; the spores obtained from false membranes removed six hours after death refused to germinate.

11. *Debove on Chyliform Effusions.*—M. Debove (*Le Prog. Méd.*, 1881, No. 23) has lately observed the following case. An old man, aged 63, presented all the signs of abundant left pleural effusion, with marked displacement of the apex. A few days after admission, imminent asphyxia called for paracentesis, but before more than a quart of fluid was withdrawn, the patient died of syncope. The fluid withdrawn was white, and, under the microscope, turned out to be a fatty emulsion containing no more leucocytes than can be seen in an ordinary serous exudation. The necropsy showed about two quarts more of the same fluid in the thorax; no trace of communication with the mediastinum; thick stratified false membranes on the pleural surfaces. M. Debove remarks that similar effusions have been described in the peritoneum and tunica vaginalis as well as in the pleura. He regards the fluid, therefore, not as true chyle, but as chyliform. With regard to these effusions in the pleura, they present the physical signs of effusion generally, with, as is usual in purulent effusions, absence of whispering pectoriloquy.

12. *Straus on Amyloid Kidney without Albuminuria.*—M. Straus (*Le Prog. Méd.*, 1881, No. 25) has brought the following case before the Société Médicale des Hôpitaux. The patient had been in various hospitals for the past three years with right-sided pleurisy of tubercular character, and finally died in the Hôpital Ténon of pulmonary phthisis. The urine had been often examined and was more albuminous. At the necropsy, there was found amyloid disease of the kidneys, spleen, and intestine. The kidneys were not enlarged; iodine brought out the amyloid reaction in brown streaks, more numerous in the medulla, and principally affecting the vasa recta of the pyramids, as was shown by the microscope. Most of the glomeruli and afferent arteries were intact; and M. Straus explained the absence of albuminuria by the special distribution of the lesion, which left unaffected the parts concerned in secretion. (See LONDON MEDICAL RECORD, 1878, p. 325.)

ROBERT SAUNDBY, M.D.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1. BENICKE, F.—Hot-water Vaginal Irrigations in Diseases of Women. (*Berl. Klin. Woch.*, den 20 Juni 1881.)
2. FEHLING.—On Intermenstrual Pain. (*Archiv für Gynäk.*, Band xvii, Heft 2.)
3. COLLET-Y-GURGUI, J.—Ovarian Pregnancy from an Anatomico-pathological Stand-point. (Stuttgart, 1880.)
4. HAMILTON, A.—Pilocarpin in Eclampsia Puerperalis. (*Brit. Med. Jour.*, April 2, 1881.)
5. KORSCH.—On the Mobility of the Pelvic Joints. (*Zeitsch. für Geburtsh. und Gynäk.*, Band vi, Heft 2.)
6. KÜSTNER.—Further Contribution to the Exact Internal Measurement of the Pelvis in the Living Subject. (*Deutsche Medizin. Woch.*, 1881, No. 18.)
7. LEBEDEFF.—Modification of Simon's Speculum. (*Archiv für Gynäk.*, Band xvii, Heft 1.)
8. LEWIS, E. S.—On a Case of Retained Menstrual Fluid. (*Proceedings of Louisiana State Med. Soc.*, 1880.)
9. MEKERTTSCHIANTZ.—Central Laceration of the Posterior Lip of the Vaginal Portion of the Cervix Uteri. (*Centralb. für Gynäk.*, den 25 Juni, 1881.)
10. PATENKO.—On the Nerve Endings in the Uterine Mucosa. (*Verhand. der Gesells. Russischer Aerzte in Petersburg*, 1880, 1 Lieferung.)
11. ROSENSTEIN, JULIUS.—Retro-Uterine Hæmatocele. (*Centralb. für Gynäk.*, 25 Juni, 1881.)
12. SCHWING, K.—Pregnancy and Labour Complicated with Enormous Primary Cancer of the Liver. (*Ibid.*)
13. SIMPSON, A. R.—Clinical Lecture on a Case of Cæsarean Hystero-oöphorectomy, or Porro's Operation, with Remarks. (*Brit. Med. Jour.*, June 11th and 18th, 1881.)
14. WING, E. CLIFTON.—Unnecessary Surgical Operations in the Treatment of Diseases of Women. (*Boston Med. and Surg. Jour.*, May 1881.)

1. *Benicke on Vaginal Irrigations in Diseases of Women.*—Dr. Benicke recommends vaginal irrigation by hot water from 37 to 40 deg. Reaumur (115 to 122 deg. Fahr.) In frequency the irrigations vary from once daily to twice every hour, to suit the emergencies of the case. The injections are administered with the patient lying on her back and the buttocks raised. The special indications for the above treatment are—1, subinvolution of the puerperal uterus; 2, chronic metritis; 3, exudation or remains of exudation round the uterus.

4. *Hamilton on Puerperal Convulsions.*—M. J. E., aged 22, domestic servant, primipara, previously

healthy, was suddenly seized with convulsions. When Mr. Hamilton first saw her she was in violent general convulsions, which had lasted two hours. She was in the sixth or seventh month of pregnancy; os uteri rigid and undilatable; urine loaded with albumen. Mr. Hamilton injected, hypodermically, six hours after her seizure, fifteen minims of a two per cent. solution of pilocarpin. This was followed in about two minutes by very profuse salivation and perspiration. The convulsions ceased, and strong uterine contractions set in. After an interval of an hour she had seven fits in quick succession. A second injection, two hours after the first, was given. The salivation following this was so copious as to threaten suffocation. Although the convulsions became weaker and less frequent, the breathing was so much embarrassed as to make the patient's recovery almost hopeless. Pains, however, became stronger and more frequent, the fœtus being expelled ten hours after the last injection. The patient remained unconscious for two days, and then recovered rapidly.

8. *Lewis on a Case of Retained Menstruation.*—The patient, aged 19, had never menstruated. With the exception of discomfort produced by abdominal enlargement, had enjoyed fair health. Four years previously, her urine had been drawn off on account of retention. Examined in the dorsal decubitus, the abdomen was found occupied by two tumours, evident on inspection and palpation. The large one in the median line was pyriform, and reached to two fingers' breadth above the umbilicus, its size being that of a seven months' gestation. The other was of the size of a turkey egg, on a level with the umbilicus to the left, and closely connected with the larger tumour, a sulcus separating the two. Fluctuation was present in both tumours. Vaginal examination disclosed an imperforate hymen stretched to the size of a silver dollar, tense and bulging, and of a purplish blue colour. The diagnosis was menstrual retention with regurgitation into the left Fallopian tube, producing the smaller tumour. The hymen was punctured with the finest needle of the aspirator, and six ounces of a tarry fluid removed. On the following days (May 14, 15, and 16) as much more each time was abstracted without visibly altering the bulk of the uterus. On the 17th, the flow of the now thicker fluid being very slow, the largest trocar in the aspirator case was used, and thirty-three ounces withdrawn. The opening made by the trocar allowed the escape of fluid after its withdrawal. On the 18th, there was a most unpleasant odour from the discharging fluid. The patient was pale; pulse 120, temperature 102.5 deg., with tenderness over the abdomen. She had been delirious in the night. Decomposition had taken place in the fluid from the admission of air, and septicæmia had resulted. A circular piece of the hymen was now removed, and about two quarts of offensive menstrual fluid escaped. The cavity of the uterus was then sponged out with weakly carbolised tepid water, until the fluid came away perfectly clear. Twenty-four grains of sulphate of quinine were given, in four-grain doses hourly. Five hours later, the temperature was 100 deg., and the general condition satisfactory. May 19, the smaller tumour remained unaffected. May 20, there was acute pain; general peritonitis. May 21, she was better. During the following two weeks the fever remained. At the end of the first week, the abdomen up to the umbilicus was dull on percussion and hard from exudation. The exudation slowly disappeared. June 15, the smaller tumour was aspirated by the finest needle, and four ounces of menstrual fluid withdrawn: it was unchanged and colourless. The tumour diminished in size, but, in a week's time, attained its former development. It was aspirated a second time with a larger trocar, a sanguineo-purulent fluid being removed. Dr. Lewis injected a little carbolised water into the sac. The septicæmia continued, complicated with diarrhœa. Under chloroform the sac was cut into, the cavity washed out with carbolic solution, and a tent introduced. Carbolic solution was injected daily. Under this treatment she rapidly improved, and was convalescent in two months after the first aspiration of the hymen. The fistulous opening resulting, continued to discharge for several weeks, finally closing. She recovered perfectly, and menstruates regularly without pain.

10. *Patenko on the Nerve-Endings in the Uterine Mucosa.*—Patenko found in the membrana propria of the uterine glands, close to the epithelioid lining, a fine network of thin non-medullated nerve-fibres, which apparently branched out from the nervous network in the muscular tissue. Still finer branches went inwards from the above named network between the cells of the epithelioid lining, and lost themselves partly here, partly in the glandular epithelium.

13. *Simpson on Porro's Operation.*—Mrs. B., aged 24, rickety, had had several craniotomies and still-born children. The internal conjugate diameter measured 2¼ inches. She was anxious to have a living child, and accepted the proposition of delivery by Porro's operation. The operation was performed under carbolic spray. The abdominal incision was 14 centimètres long. The child was extracted while the uterus was *in situ*. The child was living, and at once began to cry. The uterus contracted on the placenta, which was not removed. A stout piece of whipcord, made antiseptic, was passed round the broad ligaments and cervix uteri, drawn tight, and firmly knotted. The broad ligaments and Fallopian tubes were then ligatured, as well as the isthmus uteri. The pedicle contained three ligatures; one controlling the ovarian arteries and venous plexuses on each side, a third embracing the isthmus uteri and uterine arteries. The uterus was then amputated at a distance of 1.5 centimètres above the ligatures. The whipcord ligature was removed. There was no bleeding from the stump. The ovaries were cut away last, and the whole surface of the stump secured with the Paquelin cautery. There was no escape or exposure of the intestines. The peritoneal cavity was carefully sponged out. In sponging the pelvic cavity, the central ligature was loosened, so the uterine stump was transfixed and ligatured again. The cautery was reapplied. The abdominal incision was closed with eight silkworm gut and four horse-hair sutures. The patient died on the fourth day after the operation. The *post mortem* examination showed a considerable quantity of serous exudation and lymph in the abdomen, which was distended. The abdominal wound was healthy looking, and adhesion had taken place along the whole line of incision. The intestines were matted to the pedicle with recent lymph.

14. *Wing on Unnecessary Gynæcological Operations.*—In this paper, Dr. Wing discusses the cases where the following operations are frequently performed, but in many instances unnecessarily. 1. The operation for ruptured perinæum; 2. Division of the neck of the womb; 3. The operation for restoring the neck of the womb where this has been torn (Emmet's operation); 4. Curetting of the

uterine cavity; 5. The operation upon the anterior vaginal wall for prolapse of this portion and cystocele. He says it is the exception, not the rule, to find in women who have borne children a perinæum perfectly intact. Not only are the parts more relaxed and patulous, as the result of the distension in child-bearing, but there is more or less rupture of the vaginal outlet during parturition, even if the perinæum proper be not torn; and if the condition found in those who have not borne children be assumed to be the proper condition for all women, then an operation may easily be found 'necessary' in practically every woman who has borne children. He has not found that patients with slight perineal laceration have thereby suffered the direful symptoms, which have been described as accompanying such lesions. He remarks that it is questionable if any other operation of modern surgery has been quite as thoroughly overdone and abused, as this has been. That cases do occur where the operation is indicated and advisable, he believes; but he is convinced they are very rare. In the last seven years, he has performed the operation but twice. He considers that, in a very large number of cases, rupture of the cervix with eversion requires no treatment at all. The lesion is innocuous. As regards the curette, he says that now-a-days, if a patient present herself with a simple uterine catarrh and a history of increased uterine flow (which is but natural in such cases), and particularly if she have borne children, and have in consequence an invitingly open uterine canal, perhaps the first thing the physician thinks about is the curette. He believes of the operation upon the anterior vaginal wall for prolapse and cystocele, as he believes of each of the other operations considered, that in its proper place it is capable of much good, but that at present it is done much oftener than is necessary or best. [Dr. Wing, we think, might have attacked with more reason the *prurigo secandi* of performing serious operations, such as abdominal section for the removal of the ovaries in dysmenorrhœa or menorrhagia, the so-called 'entire removal' of the uterus, as suggested by Freund in cancer of the uterus, and the removal of the uterus for fibroma, when the patient's life is not in danger. These are being more and more frequently performed, especially in Germany, and the published results do not justify the operations.—*Rep.*]

FANCOURT BARNES, M.D.

SYPHILOGRAPHY.

RECENT PAPERS.

1. PARROT.—The Diagnosis of Hereditary Syphilis, in some of its Forms. (*Ann. de Derm. et de Syphil.*, 1881, No. 1, p. 113.)

2. EKB.—Tabes and Syphilis. (*Centralbl. für die Med. Wissen.*, 1881, Nos. 11 and 12.)

3. FINLAYSON.—Case of Hematoma of the Pericranium in a Child, simulating Hydrocephalus, and associated with Constitutional Syphilis. (*Glasgow Med. Journ.*, March 1881, p. 190.)

4. DRYSDALE.—The Duality of the Chancre. (*Med. Press and Circular*, March 16, 1881.)

5. BULL.—Some Points in the Pathology of Ocular Lesions of Cerebral and Spinal Syphilis. (*Amer. Journ. of the Med. Sciences*, April 1881, p. 382.)

6. MACKENZIE.—A Case of Disseminated Syphilitic Meningitis. (*Lancet*, April 9, 1881.)

7. O'CONNOR, B.—A Case of Syphilitic Psoriasis of the Head and Face. (*Ibid.*, April 23.)

8. WATSON, SPENCER.—Primary Syphilitic Ulcer of the Lower Eyelid. (*Brit. Med. Journ.*, May 7, 1881.)

9. OWEN.—Hard Chancre of the Lower Lip. (*Lancet*, May 7, 1881.)

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1. *Parrot on the Diagnosis of Hereditary Syphilis in some of its Forms.*—The diagnosis of infantile syphilis is often difficult, both on account of the multiplicity of forms which it may assume, and also because it is often necessary to make a retrospective diagnosis (*Ann. de Derm. et de Syphil.*, 1881, No. 1, p. 113). Age is of great importance, as certain lesions only show themselves at certain periods of life. It is especially, however, the seat of the affections that has to be taken into consideration. The lesions generally appear on the thighs, the buttocks, the lower lip, and about the chin and angles of the eyelids. One sign, to which much importance has been attached, but which, according to M. Parrot, is often wanting, is the bistre tint of the skin, the cachectic look, and the senile aspect of the face. These are sometimes seen in syphilitic infants, but are most frequently due to malnutrition. All the eruptions due to inherited syphilis have more or less of a violet tint. An eruption due to malnutrition is of a more delicate rose colour. The syphilides may be bullous, macular, papular, or vesico-pustular. Pemphigus is the earliest, for it sometimes appears at the sixth or seventh month of intra-uterine life. It is mostly observed at birth, when it is seated on the palms and soles. The contents of the bullæ are turbid or purulent. In children two months old, pemphigus may appear on the trunk and around the axillæ. Such an eruption is not syphilitic. The larger dimensions of the bullæ, the transparency of their contents, and the rapid desiccation, are sufficient to distinguish it from the syphilitic form. Macular and papular syphilides are similar to the corresponding affections in adults. The vesico-pustular eruption is the rarest and latest. The diagnosis is difficult. It begins as a papule surmounted by a vesicle, which quickly bursts, or as a red patch on which a bulla develops and rapidly ulcerates. The affection attacks the abdomen by preference. All these syphilides have a tendency to ulcerate, in which case the ulceration may remain limited to the syphilitic lesion, but sometimes it extends more widely. When the ulcers progress very rapidly, and when they extend to the neck, tuberculosis is to be feared.

5. *Bull on the Pathology of Ocular Lesions of Cerebral and Spinal Syphilis.*—Dr. C. S. Bull contributes a paper on this subject, illustrated by cases, to the April number of the *American Jour. of the Med. Sciences*. According to recent statistics, cerebral syphilis appears to be most frequent between the third and the eighteenth year after infection; and of all the symptoms of this variety of syphilitic lesion, there are probably none so frequent as those of paralysis of the cranial nerves. The most common of these are paralysis of the motor oculi, followed, in order of frequency, by paralysis of the optic, auditory, and facial nerves, and, at a longer interval, by paralysis of the olfactory and trifacial. The author believes that ocular paralyses are frequently the initial symptoms of cerebral syphilis. Of course, there are instances when the paralysis is only the consequence of a peripheral lesion, as in cases where only one ocular muscle is paralysed. But such cases are excluded from consideration in this paper. Visual troubles in cerebral syphilis are not so common as paralyses of the motor nerves. They may be due either to lesions of the cerebral

parenchyma, or to meningeal or osseous lesions at the base of the brain. The lesions may be inflammatory, or may consist in the growth of gumma. The lesions may be in the vicinity of the sella turcica and optic chiasma, or far back near the centres of origin of the optic nerves. In either case, the optic nerves have been found compressed, degenerated, and atrophied, owing to meningeal exudations, gummata, or the cicatrices of gummata. Another cause of defective vision is a primary atrophy or sclerosis of the optic nerve-fibres themselves, or, more frequently, a secondary simple sclerosis of the nuclei of origin, from sclerosis either of the neighbouring brain-substance or of the spinal cord. In these cases the opthalmoscope shows two different conditions: one of optic neuritis, the papillitis varying in appearance from simple inflammation, with slight œdema and swelling through all the stages, up to true 'choked disc', with or without hæmorrhages, and ending in what is called inflammatory atrophy, with ragged and indistinct outlines; the other, a simple white atrophy of the disc, with no signs of any preceding inflammation, the outline of the papilla being quite clear and distinct. Dr. Bull also remarks on the chronicity of optic neuritis in some cases without progressive failure of vision. Thus, a patient will come with a history of syphilis, and a complaint that his vision has been failing for some months, but that lately he has not noticed any change. The ophthalmoscope shows optic neuritis, or neuro-retinitis, with more or less swelling and œdema of the nerve and retina, but without the signs of true choked disk. One such case was under the observation of the author for nearly three years, during which time there was no demonstrable change in the fundus or in the vision. Dr. Matthewson of Brooklyn has reported several such cases. Optic neuritis may exist alone, or may be accompanied by paralysis of one or more of the extrinsic muscles of the eye; and special attention has been called by Dr. Hughlings Jackson to its connection with attacks of unilateral epilepsy. Dr. Bull strongly urges the use of the ophthalmoscope, in any case where a syphilitic patient presents symptoms which may be referred to cerebral lesion. Among the five cases reported, is one in which optic neuritis appeared in the right eye five months after infection. Under treatment, vision slowly improved for a time, but finally atrophy resulted. A year afterwards, examination showed absolutely no perception of light, a dirty grey atrophy of the disk, except on the temporal side, where it was brilliantly white, and the pupil moderately dilated and almost immovable.

6. *Mackenzie on a Case of Disseminated Syphilitic Meningitis.*—Notes of this case were read before the Medical Society of London on March 28th (*Lancet*, April 9th, 1881). The case was brought forward to illustrate the value of mercury in late syphilis. A woman with a tertiary syphilitic eruption came under treatment for tremor of the hands and feet, stiffness of the hands and fingers, and pain in the left side of the head. Iodide of potassium in twenty-grain doses, alone and in combination with perchloride of mercury, cured the eruption, but did not influence the nervous symptoms; which, however, rapidly subsided under mercurial inunction and the perchloride internally pushed to salivation.

ARTHUR COOPER.

THE CONGRESS OF GERMAN SURGEONS.

II. Clinical Cases.

The members of the Congress assembled on the mornings of April 7th, 8th, and 9th, from ten to one o'clock in the newly built operating hall of the Royal Clinic.

Case of Trephining of the Skull: Recovery.—Dr. von Bergmann (Würzburg) shewed this case. He said that, as the greatest danger in complicated fractures of the skull, apart from the injury of the brain and cerebral œdema in acute meningitis, lay in the open treatment of the wound, he recommended that the edges of the wound should be immediately brought together and united. He had operated in this way on five cases; the last being the patient now exhibited, who, in November 26 of last year, had fractured his skull and deeply injured his brain by a fall from a builder's scaffold. Four hours after the closure of the wound, paralysis of the left hand and arm and of the left facial nerve set in; these symptoms, however, gradually improved after December 14th; and, at the time of the meeting, muscular power was completely restored in the left arm, with the exception of some uncertainty in intended movements.—Dr. Baum (Dantzig) advised that healing by the first intention should not be forced, on account of the danger of the formation of abscesses in cases of concussion of the brain.—Dr. von Bergmann said that abscess would be avoided, if its cause, inflammation, were restrained; and this was only to be done by closing the cerebral wound as quickly as possible: of course with careful drainage.

Resection of Tumours of the Cranial Bones and Cerebral Membranes.—Dr. von Langenbeck shewed a woman aged 60, who had been operated on in the Berlin hospital in 1868, 1874, 1878, and 1879, on account of a cancroid in the region of the right frontal protuberance, and returned last winter with a recurrence of the disease, which now extended to the supra-orbital arch. The tumour was extirpated in February last, when not only the diseased bones were removed, but the dura mater, so far as it was affected, was cut away by scissors. A small portion of the dura mater, which had become adherent to the pia mater, was left to be afterwards destroyed by the cautery. The wound was treated with antiseptic precautions, without spray. When the dressings were changed for the first time, the whole wound was found to be filled with a firm blood-clot, which was left untouched. After a few days, the clot broke up, and the whole of the diseased portion of pia mater, with a layer of brain-substance, was thrown off. The brain was seen to be granulating at the bottom of the wound. The patient had no symptoms of paralysis after the operation; her consciousness had remained perfect, and her general health good; and the intense headache, which had driven her to seek relief by operation, had not returned. There was no indication of a return of the disease in the wound, which was still granulating. Dr. von Langenbeck referred to a case in which he had extirpated a medullary sarcoma from the forehead in 1877, unfortunately without success; also to a case of Volkmann's, reported by Genzmer in 1877, which was fatal, in consequence of the entry of air into the longitudinal sinus; and to a case related to the Surgical Congress in 1879 by Dr. Thiersch, in which a cancer of the scalp and cranium was extirpated by means of Canquoin's paste. He said that, in the removal of tumours from the skull, hæmor-

rhage could be reduced to a small amount by first lightly enveloping the head in a *mitra Hippocratis*, and then applying over this a starched bandage, the turns over the forehead and occiput being drawn tight.

The Treatment of Old Fractures of the Vertebræ.—Dr. Küster (Berlin) said that the efficacy of Sayre's plaster-of-Paris bandage in cyphosis had suggested its use in fractures of the vertebræ. He had used the plaster jacket in four such cases. In two cases of fracture of a lumbar vertebra, with symptoms of paralysis of the bladder, rectum, and lower limbs, it had been applied with good result; while no improvement followed in a case of fracture of the third dorsal vertebra. In a case of fracture of the middle part of the dorsal spine, with the formation of an angular projection, and complete paralysis of both arms and legs, and also of the bladder and rectum, Dr. Küster had broken up the callus under narcosis, and applied extension (up to twenty pounds); the result being a complete disappearance of the paralysis.—Dr. von Langenbeck had applied the plaster-of-Paris bandage in a recent fracture of the dorsal spine in 1862; it was, however, not well borne, and up to the present day he had obtained better results by placing the patient on a water-bed and applying extension by weights.—Dr. Bardeleben (Berlin) was not an opponent in general of Dr. Küster's plan of treatment; but he would recommend that the plaster bandage should not be applied immediately in cases of fracture of the spine, as such fractures were always complicated with other injuries; and it might happen that symptoms of paralysis, which were even strongly marked on the first day, might disappear in a short time without any treatment.—Dr. Sonnenburg (Berlin) had attempted, in the Berlin Clinic, to apply the plaster-of-Paris jacket, without narcosis, in the case of a child suffering from disease of the cervico-dorsal region of the spine. During suspension, difficulty of breathing suddenly set in; and the child died in an hour and a half, in spite of tracheotomy and artificial respiration. At the necropsy, along with disease of the lower cervical and first dorsal vertebræ, there was found to be a large abscess extending into the posterior mediastinum; it had not burst. Probably this abscess had caused death by pressing during the suspension, on the trachea, and on the pneumogastric and phrenic nerves. The spinal cord showed no change.—Dr. Busch (Bonn) had become very cautious in the use of suspension in spondylitis. Forcible extension led to the formation of abscesses. He had had under his care a case of fracture of the spine with disturbance of motion and sensation, in which recovery took place under suspension and the plaster-of-Paris bandage.—Dr. König (Göttingen) said that the plaster bandage would probably only come into use in slight cases of fractured spine. In severe cases, it would be dangerous to suspend to any important extent.—Dr. von Langenbeck treated Pott's disease with the plaster jacket only in cases where the children could be examined daily, and the danger of bed-sores be thus averted. Chloroform was to be recommended in the application of the bandage, as it prevented violent movements on the part of the children and thus obviated accidents. The plaster jacket was not suitable for the treatment of scoliosis. For this, he used only Taylor's bandage.—Dr. Wagner (Königshütte) advised caution in the application of the gypsum jacket in recent cases of fractured spine, lest the blood extravasated into the spinal canal should undergo compression. In one case, he had seen paralysis appear on the application of the bandage, which was, therefore, immediately removed. In four subsequent cases, he had allowed fourteen days to elapse before applying the plaster bandage, and recovery had taken place in another four weeks.—Dr. Busch (Bonn) recommended the plaster jacket in the treatment of scoliosis. Bed-sores could be prevented by a pad of cotton-wadding on each side of the projection.—Dr. Lücke (Strasburg) spoke of the advantages of the plaster jacket in dispensary practice, on account of its cheapness.—Dr. Schönborn (Königsberg) used in private practice only the felt jacket with a steel splint; in dispensary practice, the immovable plaster jacket was alone employed.—Dr. Schede (Hamburg) said that the difference in the size of the patients during the application of the plaster jacket and on its removal spoke in favour of the apparatus. In fractures of the vertebræ, recovery was obtained through extension of the bones and not of the ligaments.—Dr. von Langenbeck did not disapprove of the poroplastic jacket, but only of its use in patients who could not be seen daily. In the application of the poroplastic apparatus, which must be warmed to 140 deg. Fahr., several patients had been severely burned.—Dr. König recommended, in order to prevent this, the slow softening of the felt in a warm water bath.

Extirpation of Floating Kidneys.—Dr. von Langenbeck (Berlin) showed two individuals in whom he had removed the right kidney. One was a woman, belonging to the labouring class, who had suffered from severe pain, and whose mind had consequently become affected. The other was an apothecary, who had incontinence of the pylorus, which had gradually become developed through the pressure of the kidney on the duodenum. In both cases an incision was made through the abdominal wall, along the outer edge of the rectus muscle, and the outer layer of the mesocolon was divided; the inner layer being left intact, on account of the danger of wounding branches of the mesenteric artery. The secretion of urine was diminished in both cases for a few days after the operation, but afterwards became normal; a little albumen was present, but entirely disappeared. Both patients were relieved of their sufferings.

Nerve-Stretching in Disorders of the Spinal Cord.—Dr. Langenbuch showed a patient, in whom Dr. Westphal had diagnosed degeneration of the anterior and lateral columns of the spinal cord. The right sciatic nerve was stretched in the central more than in the peripheral direction. The patient was relieved of his tottering gait, and of anæsthesia of both legs; the latter disappeared a few hours after the operation, which was performed three weeks before the meeting, and had not returned. Dr. Langenbuch also showed a patient who had been cured of frequently recurring attacks of epilepsy, by stretching the median nerve.—Dr. Credé (Leipsic) referred to a patient shown at the Congress in 1880, in whom permanent cure of neuralgia had followed stretching and section of the third division of the fifth nerve.—Dr. von Langenbeck asked whether it was thought that the stretching should be made in a peripheral as well as in a central direction.—Dr. Langenbuch considered that the question was not yet settled. He always recommended that stretching of the peripheral portion of the nerve should be avoided, at least in the case of the sciatic nerve, the branches of which, from their anatomical arrangement, might be easily torn.—Dr. Neuber (Kiel) mentioned a

case of reflex epilepsy, which had been cured by stretching the median nerve. On the other hand, permanent paralysis had followed stretching of the sciatic nerve in a case of sciatica.—Dr. Langenbuch had not seen paralysis in twenty-four cases, in which the sciatic nerve had been stretched.

New Illuminating Apparatus.— Dr. Michael (Hamburg) described an apparatus, the construction of which had arisen from the idea that it might in many cases be advantageous to possess a means of direct illumination without the aid of lenses or reflectors. The light was supplied by exhausted glass globes containing powdered phosphorescent substances; these were lighted up by aluminum electrodes, which were connected with a Ruhmkorff's inductor. The light could be increased in proportion to the strength of the inductor; and with even a weak current it was sufficient to enable small writing to be read when held close; and a stronger light enabled it to be read at a greater distance. Dr. Michael called the instrument the psychrophore (cold light); and said that in its present form it was capable of illuminating parts inaccessible to daylight, in operations in the abdominal cavity or the vagina. He hoped also to be able to render it useful for cavities with narrow confines.

Extirpation of the Bladder and Prostate.—Dr. Gluck (Berlin) said that, after extirpation of the urinary bladder in dogs, the animals survived in all cases in which the ureters were united by suture to the abdominal wall or to the urethra. Union of the ureters to the rectum was followed by death from urinary infiltration, and passage of fæces into the abdomen. He recommended extirpation of the bladder in cases of severe and incurable disease in the human subject.

Cancer of the Vertebræ.—Dr. F. Busch (Berlin) described the case of a patient who had a small prominence on the spinal processes of the lower dorsal vertebræ, which gave the impression of incipient spondylitis. He died in an acute attack of asphyxia; the cause of death, as shown at the necropsy, being embolism of the pulmonary arteries. A cancer of considerable size occupied the bend of the pancreas, and was apparently the primary tumour. Metastatic nodules arising from this were found only in the vertebræ and ribs. An especially interesting fact was, that one of the vertebræ (the eleventh dorsal) was reduced by the cancer to the thickness of five millimètres. Transverse section of a metastatic nodule in a rib showed the normal contour of the rib lying within the white medullary mass; proving that there was no expansion of the bony tissue by the tumour.

Apparently Mycotic Disease of the Lower Jaw.—Dr. F. Busch (Berlin) showed the half of a lower jaw having a large ulcerative defect, extending nearly as far as the angle. At the angle, the bone was much thickened: beyond this, it became thinner, and the condyle was normal. On microscopic examination of sections of the thickened bone there were found numerous opaque foci, which Dr. Busch regarded as being very probably mycotic. They consisted of a number of small glittering corpuscles, enveloped in fine fibrous network: the addition of solutions of potash or soda rendered the network transparent and the corpuscles very distinct. He said that, although these corpuscles appeared to be of a mycotic nature, there was no certain proof that they were so. They were not identical, in any case, with the fungi which caused the disease in the jaws of cattle, known as actinomycosis.

Typical Fracture of a Vertebræ by Muscular Action.—Dr. Schede (Hamburg) showed a preparation taken from the body of a man who, while jumping head foremost into the water, threw his head backwards with all his might in order to avoid striking it against the ground. Only three cases of fracture of vertebræ from muscular action were to be found in medical literature; and in all the cases the cause was the same, and the vertebra fractured was the fifth dorsal.

The following communications were also made:—

Dr. Zeller (Berlin): Prophylactic resection of the trachea, with demonstration.

Dr. von Lesser (Leipsic): Local anæsthesia.

Dr. P. Bruns (Tübingen): Some improvements in the artificial larynx.

Dr. Schwalbe (Magdeburg): The cirrhotic action of alcohol, and its value in surgery.

Dr. Rildinger: Cure of two cases of ununited fracture of ulna by catgut suture.

Dr. Rose (Berlin): Cerebral abscess, cured by trephining, and removal of a fragment of a knife from the brain.

Dr. Rose: Larynx twelve years after removal of a tumour below the vocal cord.

Dr. Langenbuck: Removal of four large pieces of ribs and evacuation of 8,000 cubic centimètres of pus.

Dr. B. Fränkel (Berlin): A modification of Voltolini's rhinoscope.

Dr. Hirschberg (Berlin): Three cases of removal of splinters of iron from the eye by the electro-magnet.

A. HENRY, M.D.

REVIEWS.

A Practical Treatise on Nervous Exhaustion (Neurasthenia), its Symptoms, Nature, Sequences, Treatment. By GEORGE M. BEARD, A.M., M.D., p. 193, New York, 1880.

NOT the least striking feature of this book is the extreme modesty displayed by its author. He only compares himself by implication to Copernicus, Aristotle, Bacon, Franklin, Columbus, and Darwin, and expresses the certainty of his eventual recognition by mankind, which will in time confer the 'crown of science' upon him 'for organising it' (p. xxiii). After this, we cannot be surprised to hear that 'the capacities of the five senses of man are so meagre that they practically shut him out from Nature, and that the great natural forces, as light, heat, electricity, are quite beyond the reach of anyone of the senses' (p. 4). We have therefore all this time apparently been under a misapprehension in thinking that we see the sun, feel the heat of a fire, or perceive a shock of electricity; and the old saying '*nihil est in intellectu*', etc., is evidently an antique error. Equally remarkable is the wrath of the author against hospitals and dispensaries, 'the result of this unscientific philanthropy being that the miseries of the poor have been increased in manifold ways, and the miseries of the rich, the comfortable, and intelligent, have been unstudied and unrelieved' (p. 8). Indeed, to the author there is but one disease worth studying, viz., neurasthenia, and one prophet, viz., himself. After such introductory remarks, the reader would naturally expect further evidences of monomania in the volume; yet, with all this nonsense, there is a good deal of clinical study of certain symptoms of lack of nerve-power, without structural disease, in the book, which will repay perusal.

We think Dr. Beard quite in error in imagining that these symptoms are new, or intimately connected with our present state of civilisation, or peculiar to the United States; for most, if not all, of them may be found described in the older treatises on hypochondria, hysteria, and the consequences of sexual excesses and irregularities. This will at once become evident on giving a list of the symptoms which characterise Dr. Beard's neurasthenia—tenderness of the scalp; dilated pupils; sick headache; changes in the expression of the eye; congestion of the conjunctiva; disturbances of the nerves of special sense; muscæ volitantes; noises in the ears; atonic voice; deficient mental control; mental irritability; hopelessness; morbid fear (this is further subdivided into fear of lightning, or astrophobia; fear of places or topophobia; the latter being either fear of open places or agoraphobia, or of narrow places, claustrophobia; fear of man, anthropophobia; fear of woman, gynephobia; fear of being alone, monophobia; fear of disease, pathophobia or hypochondriasis; fear of everything, pantaphobia; fear of contamination, mysophobia; flushing and fidgetiness; frequent blushing; insomnia; drowsiness; tenderness of the teeth and gums; nervous dyspepsia; deficient thirst and capacity for assimilating fluids (under this heading it is stated as a highly interesting fact that a patient rarely drank water either at meals 'or between meals'!); desire for stimulants and narcotics; abnormalities of the secretions; palmar hyperidrosis; salivation; general hyperæsthesia; heaviness of the loins and limbs; shooting pains simulating those of ataxy; podalgia; tremulous and variable pulse and palpitation of the heart; local tremors; dysphagia; convulsive movements on going to sleep; cramps; several idiosyncracies to food, medicine, and external irritants, and sensitiveness to changes in the weather; numbness; a feeling of exhaustion; ticklishness; general or local itching; general and local chills and flushes of heat; cold feet and hands; nervous chills; sudden giving way of general or special functions; temporary paralysis; 'diseases of men and women'; oxalates, urates, phosphates, and spermatozoa in the urine; excessive gaping and yawning; appearance of youth; rapid decay and irregularities of teeth.

With regard to the diagnosis of these symptoms from those connected with organic diseases, the author remarks that the latter are usually fixed and stable, while those of neurasthenia are fleeting and transient; that some symptoms of neurasthenia, such as itching, flushing, etc., do not appear in structural disorders; that in organic disease reflex activity is generally diminished, while in functional disease it is generally increased; that neurasthenia is most likely to occur in those in whom the nervous diathesis predominates. To all these statements exception may be taken. Thus, for instance, the pains of ataxy are most transient in their appearance; itching and flushing are common in cutaneous and gastric diseases; reflex activity is largely increased in many diseases of the brain and spinal cord, such as late rigidity after cerebral hæmorrhage, primary lateral sclerosis, etc.; and epilepsy, chorea, and insanity are more apt to occur in those in whom the nervous diathesis predominates. Nevertheless, we agree with the author in thinking that there is a chronic condition of the nervous system in which the force is impaired, the action unstable, and where there is an excess of local and general irritability without organic lesion.

In the chapter on treatment we find an enormous number of remedies mentioned, sometimes with shrewd remarks. Thus, he says of the bromides that they are often used too long; that the great question is to know when to stop using them; and that giving very large doses for a few days may be more advantageous, than to give smaller ones for a very long time. Of strychnia, on the other hand, he says that it is one of our older remedies, that it cannot be used in all cases, for sometimes it is depressing and sometimes too exciting! We fail to see the instructiveness of such remarks. The author gives, however, good directions about the use of blisters and the actual cautery. Altogether his book is a medley of good and bad; there is too much flashy sensational writing, which is intended for the public rather than for the profession, and would not be tolerated in this country; while the author's success in practice is paraded in a fashion which sails too close to advertising. Yet there is merit in directing professional attention to the circumstance that many apparently alarming symptoms do not have that fatal significance which is assigned to them by many practitioners, and that more attention should be given to the treatment of subjective signs than is often accorded to them. We have ourselves seen numerous patients who suffered quite as much from simple depression of nervous force as if they had had severe structural disease, and who were not improved by having been told that it was all imagination, and that they should forget all about it. It is just in such functional disturbances that the greatest therapeutic successes may be obtained, and where the patients are often driven to charlatans from being neglected by regular practitioners.

JULIUS ALTHAUS, M.D.

Diagnosis and Treatment of Ear-Diseases. By ALBERT H. BUCK, M.D. New York: W. Wood and Co. 1880.

THIS work differs from many text-books on the same subject, inasmuch as it consists almost entirely of the author's own experience in the department of otology. Whatever may be thought of the advisability of introducing records of cases into a text-book, there is no doubt that it greatly enhances the interest of the work to those already acquainted with the subject. It may be doubted, however, whether the very frequent introduction of cases does not detract from its value to the general practitioner; more especially when, as in this book, the cases are printed in similar type to the rest of the text, and are not usually distinctly headed; so that, unless one be reading continuously, it is not always easy to remark where a case begins or ends.

After a chapter on the physiology of the ear, in which, amongst other things, the author gives reasons for supposing that the function of the semicircular canals is to act as a safety-valve to the labyrinth, the examination of the patient is entered upon; and here the author's description of the instruments required strikes us as particularly good. In more than one place in the book, he inveighs strongly (too strongly as it appears to us) against the frequent use of the syringe for cleansing the ear. In skilled hands he greatly prefers, for this purpose, the aural curette, cotton-holder, probe, and forceps. He is confident (p. 62) that, if physicians would give the instrumental method of removing cerumen a fair trial, they would not be willing to submit themselves again to 'the sloppy thraldom of the syringe'.

He records three cases of syphilitic affections

of the external auditory canal; and, in opposition to Schwartze, arrives at the conclusion that well-defined lesions of constitutional syphilis may occur in the auditory canal as well as in other parts of the body. Under the head of purulent affections of the middle ear, the author also reports two cases in which, as he considers, characteristic symptoms of syphilis were found on the membrana tympani. They presented the peculiar feature of a melting away or death of portions of the membrane (without any evidence of the occurrence of pressure from within), giving rise to perforations of that structure.

To return to the external auditory canal, the author has never met with a case of exostosis in which operative interference appeared indicated. He considers, in fact, that there are only two conditions in which the operative removal of bony tumours from this situation should be recommended, viz. : 1. In a case in which, one ear being very deaf, an exostosis occludes the meatus of the other ear, depriving the patient of his hearing, it having been first, however, clearly established that an useful degree of hearing existed in the ear before it became entirely closed by the bony growth'; 2. In a case of chronic purulent inflammation of the middle ear, in which a bony growth prevents the escape with sufficient freedom of the purulent discharge from the middle ear.

Non-purulent affections of the tympanum are described by the author under the heads of acute and subacute catarrhal inflammation, and exudation (mucous, serous, and hæmorrhagic) into the tympanum. In the treatment of this class of cases, the author has no faith in intratympanic injections through the Eustachian tube, nor in the use of vapours. The remaining cases of non-purulent inflammation of the tympanum, he classes under the head of 'chronic subacute catarrh' (*sic*), of which affection he recognises three groups. As a class, he considers, these are practically incurable, and less than three pages are devoted to their consideration.

In discussing acute purulent inflammation of the middle ear, and its association with intracranial mischief, the author remarks that, owing to the close relation of the dura mater to the tympanic cavity by means of the blood-vessels piercing the roof of the tympanum, a localised meningitis may be assumed to exist in every severe case of acute purulent inflammation of the middle ear. Chronic purulent inflammation of the middle ear is, in ninety-nine cases out of a hundred, the author considers, caused by lack of proper treatment during the acute stage of the inflammation. This statement, coming from an observer, the candour of whose remarks is evident throughout the work, is extremely important, and deserves attention. Of chronic purulent inflammation of the middle ear, the author recognises three types; 1, simple, uncomplicated cases; 2, proliferative cases (those in which granulation-tissue or polypi are present); and 3, cases in which the bone is involved; the latter being again subdivided into several varieties.

In an interesting chapter on fracture of the temporal bone, which the author regards from an aural point of view, he justly remarks on the importance of an aural examination in all cases of suspected fracture of the temporal bone. The author's own experience, as far as it goes, would lead him to modify the statements of previous observers (*e.g.*, Prescott Hewett) on the diagnostic value of hæmorrhage from the ear, to the effect that 'when a fall or blow upon the head is followed by bleeding from the ear, no matter how trivial, we may diagnose a fracture of the temporal bone in the neighbourhood of Shrapnell's membrane, and probably in the line of the Glaserian fissure.' The author considers that, as far as the mere symptom of bleeding from the ears is concerned, we are scarcely justified in assuming that the line of fracture extends beyond the region of the tympanum

As the result of his own experience, combined with a careful analysis of Schwartze's fifty cases of perforation of the mastoid bone, the author comes to the conclusion that the existence of a sclerosed condition of the mastoid process may be assumed in the great majority of cases of chronic purulent inflammation of the middle ear.

In the chapter on mastoid disease, the author cautions against making Wilde's incision too far forward, and cites a case in which he purposely made it further forward than usual, the result being the formation of a false aneurism on the posterior auricular artery. A chapter on the 'different forms of aural disease in which the labyrinth is believed to be involved' concludes the volume.

The work, on the whole, is a very able and practical one, and is of considerable interest, if only for the careful record of cases which it contains.

E. CRESSWELL BABER, M.B.

Lectures on Diseases of Bones and Joints. By C. MACNAMARA, F.R.C.S., Surgeon and Lecturer on Surgery at the Westminster Hospital, etc. Second edition, pp. 550. London: J. and A. Churchill. 1881.

WITHOUT unduly depreciating the distinguished author's first edition of '*Clinical Lectures on Diseases of Bone*', we may say that the present volume is a very great improvement upon it. Larger and more complete, yet better arranged and more condensed, it retains the clinical form, and, without precise didactic method, introduces pathology to explain recorded cases, and cases to illustrate pathology, in the practical interesting manner that clinical lectures best permit. It is still of handy size and excellent typography.

Mr. Macnamara's well known interest in education leads him to dedicate the work to Professor Humphry, 'in admiration of his persevering energy in the cause'.

The first chapter, treating of development and growth of bone, is largely based on microscopic observation, 'which shows' that until vessels have permeated cartilage, the nuclei of 'cartilage-cells are small and uniformly scattered throughout the hyaline matrix': at a certain period of embryonic life, vessels grow into the temporary cartilage at definite points, and terminate in a plexus; the nuclei proliferate in the neighbourhood of this, arrange themselves in rows—and inorganic matter is deposited between. 'Along the course of the blood-channels, but especially at their termination, the cartilage-cells are converted into *medulla*, which in its turn is transformed into osseous tissue'.

Mr. Macnamara quotes the experiments of Syme and MM. Rigal and Vignal to show that *new* bone after injury, etc., is developed from periosteum, rather than from medulla. The same experiments throw light on the fact of bone forming soonest at points of callus farthest from fracture, because irritation there is less intense. The following is a good illustration of basing practice upon pathology. The greater number of vessels passing into the extremities

of long bones come from neighbouring tissues (perforating the periosteum), not from the nutrient artery; *e.g.*, the vessels in the lower end of the femur have been injected from the popliteal; hence, well-applied pressure round this part may influence inflammatory changes in the bone controlling the blood-supply to its spongy tissue; and if we smear a thick layer of belladonna and mercurial ointment over the skin covering the condyles and joint, and encase the whole in strapping or rubber bandage, we place the inflamed intra-osseous structures in much the same condition, as to blood-supply, as the iris after dilatation by atropine for iritis. Again, after describing a subcartilaginous extra dense layer of bone (as to which he agrees with Dr. Ogston), he remarks that, behind and besides this in chronic inflammation, and some ununited fractures, sclerosis occurs 'from hyperaction of the medulla', and before union can take place the whole of the sclerosed ends must be removed, and the healthy medulla of the fragments must be brought together; without such removal, pegs, etc., are of no use.

The second lecture is also greatly improved, and the theory of oxygen-contact leading to greater frequency of pyæmic emboli in the lungs is omitted. Septicæmia is well contrasted with pyæmia, osteomyelitis with suppurative periostitis, and many interesting cases are related. Mr. Macnamara saw much of these conditions in Calcutta, and adds his testimony to the value of antiseptic dressings; he notes, what every surgeon must have noted and learnt, sometimes only by painful experience, the frequency with which commencing bone-disease, and even pyæmic conditions, are mistaken for rheumatism.

The intestinal catarrh of pyæmia may be well controlled by Dover's powder, and full doses of quinine (six grains thrice daily for a boy).

Very noteworthy is the action of pilocarpine in some cases; *e.g.*, a man, aged 46, after fracture of a leg, got 'septo-pyæmia'; 'temperature varied from 104 deg. to 107 deg.; he had low muttering delirium and extremely feeble heart action—was evidently dying'. By the advice of Dr. Murrell, half a grain of pilocarpine was injected beneath the skin of the arm with truly surprising effect; in ten minutes profuse perspiration broke out, the tongue became moist, he asked for food, and began to talk—temperature fell to 103 deg.; however, he relapsed next day, improved again with the same remedy, but ultimately died. The value of aconite is not referred to, but deserves reference.

Acute epiphysitis is well described, one case, aged three weeks, being very instructive; the swelling of the femur had been attributed to *acute arthritis;* death followed from pyæmia, but an early free opening might have saved life. Though most frequently met with under two years of age, this malady is not confined to infant life. Effectual drainage of the part is the important early treatment—when separation of the diaphysis has taken place.

The symptoms and pathology of tuberculous bone disease are next described; and the author agrees with Gross and Gibney that no injury can induce it, independently of tuberculous diathesis, and, if its onset be not traumatic, the old canon of *rest* is less important than securing free air and light. The tubercle so far destroys medulla, that new hard bone is not formed at the seat of injury as in ordinary inflammation. The thermometric contrast between this and syphilitic bone-disease is well marked, there being a constant evening rise during the acute stage of the latter, but no constant temperature-scale in tuberculous cases.

A full account is given of M. Parrot's views as to syphilitic changes, especially in the calvarium (changes, by tracing which, we have heard him convict of syphilis Indians and Mexicans of almost prehistoric times), and we note that Mr. Macnamara, with the majority of English observers, traces many similar changes to malnutrition in non-syphilitic infants.

The cranio-tabes spots in rickets he describes as 'small fontanelles' closing as such; he has never known softening of a part once hardened.

A propos of mollities ossium and brittle bones, his observations on the bones of insane patients give no ground for the supposition that they are unusually brittle. (In this chapter occurs one of the few instances of insufficient correction, thus—'Jones records a case of a mulatto who had fifty fractures, with a cousin affected in the same way.')

Under *repair of fractures*, some good cases of united patellæ are given, the good result being traceable to free division of the quadriceps tendon, and in one case, of the ligamentum patellæ also; serous fluid was drawn off by aspiration, and the fragments fixed by ordinary means.

Under exostosis, Mr. Macnamara describes one on the inner side of the right thigh, four inches long, in the line of the femoral artery; and it would be worth while to contrast this with the curious ossification of the adductor tendon, said to occur most often in great riders, and of which a marked example has just come before us. Mr. Bryant describes it.

Synovitis is well treated by Martin's bandages applied over belladonna dressing and cotton-wool. Some pain may be caused at first. The limb must be bandaged well from the foot upwards (with linen roller). A chronic case of 'hydrops articuli' recovered well and without much irritation, after the injection of an ounce of pure tincture of iodine.

Hip-joint disease is carefully treated of. An interesting case of abscess under the tensor vaginæ femoris is contrasted with it. Ample justice is done to Sayre's method in spinal curvature, and calisthenics are prescribed for early stages of the lateral form; no special form of these is suggested, and certainly riding is not always advisable for girls. The systems of Ling, Roth, and others, founded on direction of the patient's will to exercising special groups of muscles, well deserve mention.

But enough of detail and illustration has been given to show the practical character of the book, which may be said, in brief, to be the best monograph we know on its own subject. It leaves the impression of high-class modern scientific teaching, contains much original work, utilises largely hospital experience, and is well calculated to enhance the author's own reputation and that of the medical school of which he is a distinguished member.

C. D. F. PHILLIPS, M.D.

A Text-Book of Practical Histology. By WILLIAM STIRLING, M.D., F.R.S.E. London: Smith, Elder, and Co. 1881.

DR. STIRLING has succeeded in producing a very excellent work upon the subject of practical histology. He has long been known as one of the most successful teachers of the sciences which are strictly preliminary to the medical education, in that part of the United Kingdom in which successful teachers in the same subjects are by no means rare. From long experience, Dr. Stirling has been enabled to

discover what help is required by medical students in a course of practical work such as the present volume embraces ; and we are glad to observe that he has throughout made his work thoroughly practical, and has in almost every case avoided, as far as is possible, reference to theories or doubtful observations.

The object of a medical student in attending a course of practical histology is, we apprehend, in the first place, to gain an accurate knowledge of the appearances presented by the various tissues in their normal condition ; for without such knowledge he will assuredly be as much at sea when he comes to deal with the morbid tissues, as is he who endeavours to distinguish the gross morbid change in a granular kidney before he has mastered the appearance of a healthy one. In the second place, the student learns in a course of practical work the art of manipulation ; and in practical histology more particularly, he acquires a habit of making delicate muscular movements, which will stand him in good stead in his subsequent career. Lastly, he learns the elements of scientific precision ; and this will be especially the case if the necessity of drawing be impressed upon him from the beginning of his work with the microscope.

Dr. Stirling very properly lays great stress upon the value of careful drawings, because he finds that the majority of students prefer to shirk this portion of their task, as it seems to them a work of supererogation when they have the specimen itself to refer to, though they forget that each sketch of the object serves very materially to impress its details upon their mind, whilst it renders apparent many points which are liable to be overlooked upon a hasty examination. A series of outline plates is, therefore, bound up with the letterpress in the present volume; and it is intended that each student should fill them in from preparations which he has himself made in the class. If this scheme be fully carried out, each student will, at the end of the session, be in possession of an atlas representing the details of the more important preparations. The idea is an excellent one, and the author tells us that it works well in practice, since skill in filling in the necessary details is rapidly acquired.

Dr. Stirling dedicates his work to Professors Ludwig and Ranvier, the great foreign authorities upon physiology and histology, and his masters in the craft; whilst in the preface he offers thanks to Drs. Lawson and Birch for assistance in revising the proof-sheets, though we think he would more fittingly have acknowledged the aid which he has derived from Dr. Klein, to whose recently published Atlas of Histology continual reference has evidently been made.

The introduction to the volume occupies the first fifty-five pages, and comprises a very excellent and complete, although necessarily brief, account of the various details with which a student should be familiar who is commencing the subject of practical histology. The method of using the microscope, of cleaning lenses and cover-glasses, of employing dry and immersion objectives, and of the employment of the camera lucida, may be selected as specially noteworthy from the clearness with which they are explained. The moist chamber for the study of the properties of living protoplasm, and the mode of applying vapours and gases, are also described. A special section is devoted to the preparation of tissues for microscopic examination, which is all the more satisfactory, from the assurance given by the author in the preface that he has introduced no method which he has not found from repeated trials to be successful, and that the methods described are those which, after nine years' experience in the teaching of practical histology, he has found to be really reliable. A work of this kind is, indeed, valuable only in so far as it actually gives the experience of the author ; and in the present instance our own experience fully bears out that of Dr. Stirling. The method of cutting sections is then explained, and the various kinds of microtomes are described, illustrations being attached to enable the student to recognise them. Amongst the staining fluids the author has devoted special attention to the gold and silver method, whilst he briefly alludes to the results obtainable from double and treble staining. The account of the method of mounting tissues is not so satisfactory as the preceding, since we cannot agree with the author's preference for objects mounted in glycerin, whilst we are quite certain that dammar is not nearly so serviceable as a preservative agent as is Canada balsam. Lastly, the fluids for injection are mentioned ; and directions are given for injecting the blood-vessels by means of mercury and water apparatus, and of the lymphatics by the 'einstich' process.

The second portion of the book consists of the practical work ; it embraces a short account of each of the chief organs and tissues, to which is prefixed a description of the method to be followed in each case in order to prepare the necessary specimens. The examination of the tissues appears to be conducted with great regularity, and the directions laid down are so clear and concise that the student should have little or no difficulty in following them out. References are made to the outline plates which may thus be readily filled in. To this part of the work little can be added, and it is the more trustworthy, inasmuch as constant reference has been made to the latest work upon the subject, whilst the most recent nomenclature has throughout been adopted. We can only hope, therefore, that the student who has conscientiously and thoroughly worked through this atlas, and who has thereby obtained a grasp of the fundamental facts in the science of histology, will also have acquired so great an interest in the subject as shall enable him in future years to follow up what he has now learnt, and to enlarge our present field of knowledge by independent research.

As regards the publishers' part of the work, the atlas of histology does them credit ; it is well printed upon good paper. We could have wished, however, that the oblong form had been preferred to the square quarto which has been adopted, since we find that it is very difficult to reach some of the upper figures, especially if the lower ones have been previously filled in.

D'ARCY POWER, M.A.

The Transactions of the Edinburgh Obstetrical Society. Vol. v. Edinburgh : Oliver and Boyd. 1880.

THIS volume contains an account of the proceedings of the Society during the years 1877 to 1880. The chief interest of the present volume depends on the number of interesting and original communications by Prof. A. R. Simpson. Dr. Underhill contributes three cases of accidental hæmorrhage. In discussing the treatment, we are glad to see that Dr. Underhill thinks that the use of the plug is not without danger, particularly in the hands of the inexperienced, who might easily be led into a false feeling of security, and neglect to watch

over the uterus. He relies on—first, rupture of the membranes, with administration of ergot or ergotin, provided there be no condition present, such as contracted pelvis, to contraindicate its use; secondly, should the hæmorrhage continue, turning, if it were still available, or, better still, rapid dilatation of the os with Barnes' bags, and subsequent speedy delivery, if necessary, with the forceps. The book is well got up, and carefully edited; we would, however, remind the editors that pubis is the genitive case of pubes, and that forceps is a singular noun.

FANCOURT BARNES, M.D.

Bovine Tuberculosis in Man: an Account of the Pathology of Suspected Cases. By CHARLES CREIGHTON, M.D.Cantab. Pp. 119. London: Macmillan and Co. 1881.

THE author first succinctly describes the most striking peculiarities of bovine tuberculosis on the authority of Walley, Trasbot, Fleming, and other veterinary writers. Of these, the fact that the disease has its most characteristic manifestations in the serous membranes, is the most important. Growths occur in this situation, which rapidly caseate and assume various forms, recalling, sometimes, the 'duckweed' seen on a stagnant pond, whence the German name 'Meerlinsigkeit'; sometimes the growths have a fancied resemblance to pearls, whence the name 'Perlsucht', by which the disease is most generally known in Germany; in England the same growths have suggested the vulgar name 'The Grapes'. Nodules, sometimes resembling infarcts in form, are found in the lungs; by a subsequent necrotic process these nodules may be replaced by closed smooth-walled cavities, which, according to Dr. Creighton, Virchow has mistaken for bronchiectasis, whence his statement that that condition frequently occurs in the cow. The lymphatic glands are generally affected; the intestines, bones, and mammæ in many cases. Gerlach and Orth have demonstrated that, by mixing tubercular matter from the cow with their food, a disease can be communicated to the calf, goat, and rabbit, which closely resembles in its pathological products bovine tuberculosis. Dr. Creighton believes that the resemblance between the *post mortem* appearances found in the twelve cases he reports in this work, and those of bovine tuberculosis, are sufficient to establish the identity of the diseases. The chief peculiarities of bovine tubercle in its intimate structure are the unusual vascularity of its periphery, and the number of giant-cells found in the area just within the zone of vascularity, and lying between it and the central area of early necrosis. These peculiarities he finds reproduced in the structure of the tubercle in the cases here reported. He describes and figures the pleural growths in several cases, and points out that they tally on naked-eye as well as on microscopical examination with the pleural growths of 'perlsucht'. One of the cases reported had been treated, eight months before death, for a febrile attack which had been diagnosed as typhoid fever. It is also pointed out that in an epidemic, considered to be of typhoid fever, reported by Dr. W. H. Spencer, which occurred in an industrial school at Bristol, all the cases which died revealed on *post mortem* examination extensive tuberculosis of the serous membrance. Dr. Creighton, therefore, asks whether some epidemics, which have been set down to typhoid, may not really have been instances of an infective tuberculosis. The mammary gland in the cow may be affected, and in that case the quantity of milk yielded is at first increased, though the quality soon deteriorates; it is suggested that the disease is transmitted to man through the milk. A case, reported by Walley, is related, in which two young pigs were affected with tuberculosis after being fed on the milk of a tuberculous cow. [Albert, in an article translated for the *Veterinary Journal*, relates a case which came under his observation; two litters of pigs, of different ages, were fed on the milk of a tuberculous cow; the younger litter died in about three months, and showed evidence of tuberculosis *post mortem*; the older litter survived, but when killed in the following winter there was found, in the only animal examined, a caseous mass in the spleen, and grey tubercle in the mesenteric glands. —*Rep.*] Dr. Creighton does not look upon the lymphatic gland as the centre of infection, as has been generally taught; these so-called caseous glands are really tubercular, the caseous appearance being due to the agglomeration of a vast number of separate tubercles, each having the peculiar structure above referred to. The lesions in glands, serous membranes, lungs, and other organs, are co-ordinate products of the tubercular virus. This virus enters the economy by the digestive tract, though not necessarily, perhaps, through an ulcerated surface. From some of Orth's experiments, it appears that the activity of the virus is not destroyed by boiling. DAWSON WILLIAMS, M.B.

Rainfall and Climate in India. By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

THIS paper was read at a meeting of the Victoria Institute, and is published in their transactions. It is of some importance as giving, in a brief compass, a report of the rainfall of numerous places in India. As, in point of time, India is sufficiently near to this country for a tourist to select it as an unrivalled place for sporting, the excerpts from Mr. Blandford's accurate and extensive records of Indian climate are likely to be useful. Sir J. Fayrer points out that the climate and varying seasons of India owe much of their peculiar character to the monsoons, which are the great producers and distributors of rain in India. This term is applied to the great air-current that blows one half of the year northwards, and the other half southwards. The south-west monsoons commence in April, and terminate in October, and cause a very heavy rainfall on the southern and western coasts. In 1878 and '79, the years for which tables are given, the rainfall varied enormously in different localities, having been, in 1878, as little as 9.24 inches in Sind and Cutch, and 24.36 in Rajputana, whilst it was as much as 118.77 inches in the Ghauts, 170 inches in Tenasserim, and 171 inches in Arakan. In the table for 1879, the rainfall is given for each month of the year for thirty-four places. Generally speaking, 1879 was a dry year, but at several places the rainfall was enormous, viz., 160 inches in Darjeeling, most of which fell in June, July, August, and September; 113 inches in Silchar and Rangoon; and 227 in Akyab. At Cherra Poonjee, 600 inches of rain fell in half the year; and Sir J. Fayrer says that he registered 610 inches in one year. At Mahableshwar, the fall amounts to about 300 inches. The average at Calcutta is about 63 inches, at Allahabad 39 inches, and a little more at Lucknow; at Bombay 74, Madras 49, Patna 40, whilst at Chittagong it is 103, and Rangoon 101 inches. Sir J. Fayrer quotes an ac-

count by Mr. Robinson, of the beginning of rain after a long continued drought, which is highly picturesque.

There is very little said about temperature, but the means are given for a few well known places. At Calcutta, the mean in May, the hottest month, is 89 deg., in January 70, but it ordinarily ranges between 45 deg. and 92 deg., occasionally rising to 104 deg.; Madras 88 in June, varying between 72 deg. and 92 deg.; Bombay 86 deg. in May, range small; Peshawur 91 deg. in June and July, January 52 deg., range great; Punjaub, June 89, range from 32 deg. to 110 deg.; Bangalore, May 81 deg., January 69 deg., range small. The coldest months are December and January. As regards the effects of heat, Sir J. Fayrer says they are very different, according to the dryness or dampness of the air; as dry air, in motion, with a temperature of 100 deg., is more tolerable than stagnant air loaded with moisture is at 80 deg., so that the climate of Northern India is more pleasant than that of Lower Bengal, and parts of Southern India.

RECENT GERMAN BOOKS.

Bernhardt, Dr. M.—Beiträge zur Symptomatologie und Diagnostik der Hirngeschwülste. gr. 8. 1881. 8 Mark.

Binz, Prof. Dr. C.—Grundzüge der Arzneimittellehre. Ein klinisches Lehrbuch. Siebente Auflage. gr. 8. 1881. 6 Mark.

Casper, Johann Ludwig.—Handbuch der gerichtlichen Medicin. Neu bearbeitet und vermehrt von Dr. Carl Liman, Geh. Medicinal-Rath, Prof. der gerichtl. Med. und Stadtphysicus zu Berlin. Siebente Auflage, In zwei Bänden. gr. 8. I. Bd. (Biologischer Theil.) 818 S. 1881. 18 Mark. II. Band. (Thanatologischer Theil.) Im Druck.

Eulenberg, Dr. Herm.—Geh. Ober-Medicinal-und vortragendem Rathe im Ministerium, Handbuch des öffentlichen Gesundheitswesens. Im Verein mit Fachmännern bearbeitet und herausgegeben. Erster Band. gr. 8. 1881.

Fournier, Prof. Dr. A.—Syphilis und Ehe. Vorlesungen, gehalten im Hospital Saint-Louis in Paris. Ins Deutche übertragen von Dr. P. Michelson. Autorisirte Ausgabe. 8. 1881. 5 Mark.

Fuhrmann, Dr. F.—Kreisphysicus, Stersblichkeits-und Krankheits-Statistik im Kreise Niederbarnim, sowie Organisation zur Bekämpfung epidemischer Krankheiten. Mit Tabellen und lithogr. Tafeln. 1881. 5 Mark.

Gurlt, Prof. Dr. E.—Leitfaden für Operationsübungen am Cadaver und deren Verwerthung beim lebenden Menschen. Fünfte Auflage. gr. 8. 1881. 4 Mark.

Guttmann, Dr. Paul, dirig. Arzt des städt. Barackenlazareths und Privatdocent, Lehrbuch der klinischen Untersuchungsmethoden für die Brust- und Unterleibsorgane, mit Einschluss der Laryngoscopie. Vierte vielfach verbesserte und vermehrte Auflage. gr. 8. 1881. 10 Mark.

Helfft, Dr. H.—Handbuch der Balneotherapie. Leitfaden für practische Aerzte bei Verordnung der Mineral-Quellen, Molken, Seebäder, klimatischen Kurorte, etc. Herausgegeben vom San.-Rath Dr. Georg Thilenius. Neunte Auflage. gr. 8. 1881.

Henoch, Prof. Dr. Ed.—Vorlesungen über Kinderkrankheiten. Ein Handbuch für Aerzte und Studirende. gr. 8. 1881. 16 Mark.

Herzenstein, Dr. U.—Beitrag zur Lehre der Augenmuskellähmungen. (Berechnung aller möglichen Combinationen der ein- und doppelseitigen Augenmuskel-paralysen.) Mit zwei semiotischen Tafeln der Combinationen 1. Klasse. Lex.-8. 21 S. M. 2 lithogr. Tafeln. 1881. 1 Mark 60 Pfennings.

Koenig, Prof. Dr. Fr.—Lehrbuch der speciellen Chirurgie. Für Aerzte und Studirende. Dritte Auflage. In drei Bänden. gr. 8.

Koeppe, Dr. C.—Die Homöopathie Hahnemann's und die der Neuzeit. Eine vergleichende Studie. 8. 100 S. 1881. 2 Mark.

Lewin, Dr. L.—Die Nebenwirkungen der Arzneimittel. Pharmacologisch-klinisches Handbuch. 1881. 6 Marks.

Munk, Prof. Dr. H.—Ueber die Functionen der Grosshirnrinde. Gesammelte Mittheilungen aus den Jahren 1877—1880. Mit Einleitung und Anmerkungen. gr. 8. Mit Holzschnitten und einer lithogr. Tafel. 1881. 3 Mark.

Munk, Dr. J.—Physiologie des Menschen und der Säugethiere. Ein Lehrbuch für Studirende. gr. 8. Mit 68 Holzschnitten. 1881. 15 Mark.

Orth, Prof. Dr. Joh.—Cursus der normalen Histologie. Zur Einführung in den Gebrauch des Mikroskopes, sowie in das practische Studium der Gewebelehre. Zweite verbesserte und vermehrte Auflage. gr. 8. Mit 107 Holzschn. 1881. 8 Mark.

Rossbach, Prof. J. M.—Lehrbuch der physikalischen Heilmethoden für Aerzte und Studirende. Erste Hälfte. gr. 8. Mit Holzschnitten. 1881. 4 Mark.

Schweigger, Dr. C.—Klinische Untersuchungen über das Schielen. Eine Monographie. gr. 8. 1881. 4 Mark.

Sommerbrodt, Prof. Dr. J.—Die reflectorischen Beziehungen zwischen Lunge, Herz, und Gefässen. gr. 8. Mit Holzschnitten. (Separatabdruck aus der Zeitschrift für klin. Medicin.) 1881. 3 Mark.

Sonnenschein, F. L.—Handbuch der gerichtlichen Chemie. Neu bearbeitet von Prof. Dr. Alex. Classen. gr. 8. Zweite gänzlich umgearb. Auflage. Mit 58 Holzschn. und 1 Tafel. 1881. 14 Mark.

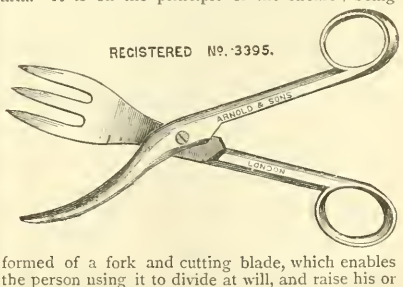
Tauber, Dr. Ed.—Die Anaesthetica. Eine Monographie mit besonderer Berücksichtigung von zwei neuen anaesthetischen Mitteln, kritisch und experimentell bearbeitet. gr. 8. 1881. 2 Mark 80 Pfennings.

Verhandlungen der deutschen Gesellschaft für Chirurgie. Neunter Congress. gr. 8. Mit 9 Tafeln und Holzschnitten. 1881. 12 Mark.

NEW INVENTIONS.

THE DESIDERATUM.

The Combined Knife and Fork has its origin in a suggestion made by Dr. John C. Hogan, and intelligently reduced to practice by the sole manufacturers, Messrs. Arnold and Sons, of West Smithfield, London, to whom the gratitude of the one-handed will no doubt be freely paid. It was invented by Dr. Hogan to obviate, as far as possible, the awkwardness and inconvenience attendant on the eating of their meals, by persons deprived of the use of either arm. It is on the principle of the shears; being

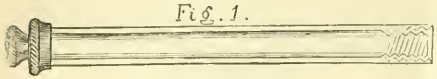


formed of a fork and cutting blade, which enables the person using it to divide at will, and raise his or her food. It can be had to suit either the right or the left hand, and with or without an indentation (which acts as a tooth) on the fork edge.

DISARTICULATING STETHOSCOPE.

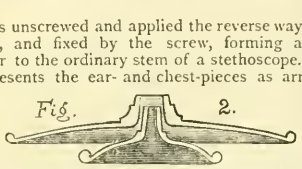
This instrument, designed by Dr. Whittaker, is contrived chiefly for convenience in carrying. One half the stem is contained within the other half, the screw-thread keeping it fixed. For use, the smaller

Fig. 1.



tube is unscrewed and applied the reverse way to the larger, and fixed by the screw, forming a stem similar to the ordinary stem of a stethoscope. Fig. 2 represents the ear- and chest-pieces as arranged

Fig. 2.



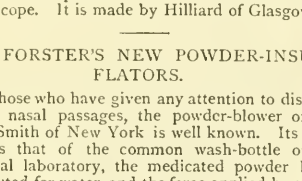
for carrying; one fits within the other. When required for use, they are separated, and the 'fitting' joints enable them to be fixed firmly and instantaneously to their respective ends of the stem, ground accurately to receive them. The chest- and ear-pieces, when arranged for carrying, take up no more room than a medal or a couple of coins, while the stem takes up the same room as an ordinary pencil; both may be carried in the waistcoat-pocket, and never noticed. The advantages will at once be obvious, since it is difficult to conceive a more awkward instrument than the stethoscope for carrying; and if the instrument can be made to equal the ordinary stethoscope in its acoustic properties, this ingenious device is sure to meet with approval. A comparative trial with this invention shows that (possibly owing to the necessarily flat surface of the chest-piece) in the latter respect it hardly comes up to the awkward but reliable wooden stethoscope. It is made by Hilliard of Glasgow.

DR. FORSTER'S NEW POWDER-INSUFFLATORS.

To those who have given any attention to diseases of the nasal passages, the powder-blower of Dr. A. H. Smith of New York is well known. Its principle is that of the common wash-bottle of the chemical laboratory, the medicated powder being substituted for water, and the force applied by an air-bulb. Dr. Forster says:—

'By practical experience in its use, I soon learned that, on account of the convexity of the bottom of the bottle, the powder was blown away from the tube, falling about the sides of the bottle and much of the force of the air was wasted. Fig. 1, *a*, is drawn to show this defect. To obviate it, I had made some stout bottles in shape like a short test-tube, the omission of any shoulder permitting them to be easily cleaned if it be desired to change the powder. This, with their size, makes them more convenient to hold in the hand, the concave bottom rendering it unnecessary to keep the bottle on a horizontal plane. The tubes are made of either hard rubber or glass, the latter being preferable; besides being less expensive, they can be more easily cleaned, powders containing tannin readily blocking the rubber ones. With some glass tubing, a spirit-lamp, and a slight amount of manual dexterity, the tubes can be easily made of any desired length and curve to suit any special case. To save trouble, it is advisable to have a different bottle for each powder in general use. A stand can easily be made by boring the requisite number of holes in a piece of plank. The long curved tube originally intended for the posterior nares can be readily turned about, as shown by the dotted lines in fig. 1, *b*, and thus used anteriorly. In the cut, the air-bulb is not drawn proportionately large, nor is its valve shown. By substituting a straight tube for the curved one, the patient can easily be taught to use the blower for the anterior nares; the expense can be lessened by replacing the air-bulb with a glass mouth-piece and using the force of the expired breath. To treat post-nasal catarrh by applying powders to the vault of the pharynx, the posterior tube should be bent at a right angle, and not curved as for insufflating the nares from behind. The patient can easily be taught to make the application.

Fig. 1.



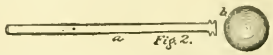


Fig. 2.

'Fig. 2 represents a modification of the Rauchfuss powder-blower, with the bulb detached. The glass tube has two shoulders or rims at one end, the first of which is inserted into the rubber air-bulb; the second prevents the tube from entering, and the thickness of the bulb lying between the two, it is firmly held in place. By crowding the distal end of the tube into the powder a sufficient quantity is taken up. By this instrument the powder is not well distributed, but deposited in bulk, as it were; and the principal use of this blower is to deposit a powder in one locality, as is the case when sulphur is applied topically to the throat, as many practitioners do about here when treating diphtheria. Since the cut was made, and the above was written, I have found that if the distal end is drawn out, leaving an opening one half the diameter of the rest of the tube, this insufflator answers fairly well, and has the advantage of being much less expensive than the one made of hard rubber. For some time I have used such a blower for applying boracic acid to the ear, the tube in this case being only six centimètres in length.

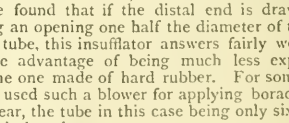


Fig. 3.

'Fig. 3 represents a bent glass tube, with an opening in the upper surface of the shorter arm. This I have designated a "spoon" insufflator; for when charging it for use, the opening permits the powder to be easily "spooned" up. This is closed by the tip of a finger, the powder being blown by the breath. This instrument is inexpensive, and answers admirably for the insufflation of sugar, camphor, etc., for the treatment of "snuffles" in infants, as recommended so warmly by Dr. Robinson in his

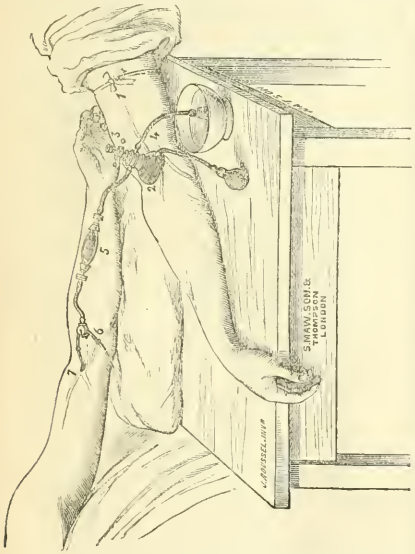
recent work on nasal catarrh. These can be made with shoulders, like the tube in fig. 2, a bulb added, and thus made available for self-use.'

Manufactured by Messrs. Leach and Greene, 1, Hamilton Place, Boston, U.S.

ROUSSEL'S APPARATUS FOR TRANSFUSION OF BLOOD.

This apparatus consists of a receiver intended to be applied to the arm of the person furnishing the blood; for instance, it may be applied on the anterior surface of the forearm at the level of the median vein.

This receiver is to be fixed by means of an opening which communicates by a tube with the receiver; two tubes set out from this receiver, one going to a vessel containing warm water, the other bearing a small aspirating- and force-pump, terminating in two small tubes, which may be opened or closed at will, and of which one is intended to penetrate into the vein of the patient. On the top of the bell is placed a spring lancet, which is regulated by means of a screw, and which opens the vein. When the



1. The vein of the person furnishing the blood, rendered turgid by a bandage. 2. Annular scarificator placed over the vein. 3. Lancet holder. 4. Aspirating tube of hot water to exhaust the air. 5. Pump receiver to contain ten grammes of blood. 6. Bifurcated tube for the exit of the water. 7. Cannula introduced into the prepared vein of the person who is to receive the blood.

apparatus is in place it is filled with water; the column of blood drives out this water; and when once the blood is thoroughly pure, the small sound is inserted into the vein. The transfusion of 250 grammes of blood can be effected in four or five minutes. This apparatus is manufactured by Messrs. Maw, Son, and Thompson.

THE LONDON MEDICAL RECORD
ILLUSTRATED GUIDE
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AT THE
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MR. WILLIAM COWAN, Avenue Street, Springburn, Glasgow, exhibits a Vaccination Shield.

MESSRS. SAMUEL GULLIVER AND CO., Aylesbury, send a collection of the celebrated Aylesbury Aërated and Mineral Waters.

MR. J. H. HAYWOOD, Castle Gate, Nottingham, has a good collection of Surgical Appliances.

MESSRS. W. B. HILLIARD AND SONS, Renfield Street, Glasgow, exhibit a collection of Surgical Instruments and a Surgical Operating Table.

MESSRS. HORN AND SON, Elgin Road, Croydon, exhibit a Regulating Digitorium.

MR. W. H. LLOYD, Heath Road, Harborne, near Birmingham, sends several Bronchitis Kettles of his invention, also Vapour Baths.

DR. RICHARD NEALE, Boundary Road, N.W., sends a Punkah or Chemical Lung.

MR. SAMUEL NEWMAN, Railway Approach, London Bridge, exhibits a good assortment of Medical Dietetic Articles.

MR. N. H. NIXON, of University College Hospital, introduces several Appliances for the Ward and Sick Room.

MR. JAMES PACKHAM, Katherine Street, Croydon, shows Mineral and Aërated Waters.

DR. G. H. PHILIPSON, Eldon Square, Newcastle-on-Tyne, sends the original McIntyre Splint.

MESSRS. J. POORE AND SON, Andover, Hants, exhibit their Aërated and Mineral Waters.

MR. HY. J. PRATT, Blossom Street, York, shows samples of his Cod-liver Oil Jelly.

MESSRS. JOHN RICHARDSON AND CO., Friar Lane, Leicester, make a good display of their specialities, consisting of Chemicals, Drugs, Medicine Chests, Pharmaceutical Preparations, and Thymol Soap.

MR. T. P. TEALE, Cookridge Street, Leeds, contributes an interesting collection of Surgical Instrumen s.

Aërated and Mineral Waters are sent by MR. JOHN WALSH, of Brackley.

A Model of a Bed-Lift is shown by MR. THOMAS WILMHURST, Grosvenor Road, Millbank, S.W.

MR. M. PILLISCHER, New Bond Street, exhibits Apparatus used in the investigation of disease, a choice collection of Electrical and Optical Instruments, and some fine Microscopes.

THE PATENT ELASTIC COTTON COMPANY, LIMITED, Rye Hill Park, Peckham Rye, have a variety of samples of their Elastic Cottons and specimens of their Hospital Furniture.

MR. WM. HAMILTON, Ship Street, Brighton, shows an

Invalid Couch; and Mr. I. N. JAKINS, of Osnaburgh Street, a Bed-Lift.

A Diet Chart is exhibited by W. S. BERTRAM, Bennett Street, St. James's Street; and Feeding Bottles are shown by Mr. E. O. DAY, 78, Waterloo Road, S.E., by GEORGE WELLS, North Street, Westminster, and by THOMAS MARSHALL, 46, Leadenhall Street.

A Naso-Oral Respirator is exhibited by Dr. J. HUNTER MACKENZIE, Northumberland Street, Edinburgh; and Disinfecting and Clarifying Materials are sent by Mr. PETER SPENCE, Pendleton Alum Works, Manchester.

MR. JAMES N. DAVIDSON, Dundee, exhibits a good collection of Medical Dietetic Articles and Pharmaceutical Preparations; and MESSRS. H. P. HAYHOE AND CO., Sowmarket, send samples of a Cleansing Material.

Mr. F. W. BREWSTER, St. Stephen's Club, Westminster, exhibits a new Life-Saving Apparatus (from Drowning).

MESSRS. FOSTER AND GREGORY, Lonesome Chemical Works, Streatham Common, S.W., contribute a good collection of Pharmaceutical Preparations; and a similar collection of the same class of articles is sent by Messrs. J. F. MACFARLAN AND CO., North Bridge, Edinburgh, with a useful selection of Surgical Appliances.

Mr. E. A. SCHNEIDER, Cambridge Villas, Chesterton Road, Cambridge, exhibits a variety of dietetic preparations.

Mr. P. HINCKES BIRD, F.R.C.S., Norfolk Square, W., sends a Disinfectant; and Messrs. G. BRITON AND Co., Castle Street, Holborn, have an assortment of Respirators.

Mr. W. S. MITCHELL, M.A., Rosaville Road, Fulham, S.W., exhibits a compact School Collection for use in teaching the Chemistry of Foods.

Mr. E. SIMPSON, Somerleyton Road, Brixton, S.W., shows Artificial Human Eyes.

Messrs. IHLEE AND HORNE, 31, Aldermanbury, are exhibitors of various modes by which luminous paint may be utilised, such as providing luminous ceilings for hospitals, luminous life-buoys, boards for lanterns, leather, cloth, etc.

Messrs. JAMES HOW and Co., Farringdon Street, show an apparatus for estimating urea by means of hypobromite of sodium.

Messrs. POCOCK BROTHERS, Southwark Bridge Road, exhibit several air and water beds, and a model padded room.

Mr. R. R. SCHRAMM, Belmont Street, Chalk Farm Road, exhibits a variety of appliances for the sick-room, crutches, surgical instruments, surgical operation table, and trusses; and the well-known house of SALMON, ODY and Co., 292, Strand, send a good assortment of their excellent trusses.

Invalid furniture and a *post mortem* table are sent by Mr. T. MCILROY, Grafton Street, Fitzroy Square; and Mr. WM. STIDOLPH, High Street, Dartford, exhibits his ingenious institution bedsteads, and bedding.

Messrs. R. J. WINTER and Co., Goodge Street, Tottenham Court Road, send various appliances for the ward and sick-room; and a similar collection is contributed by Messrs. MONK and Co., Great Russell Street, with invalid furniture, and operating chairs.

Mr. J. R. CORSAN, Gray's Inn Road, exhibits an assortment of chemists' fittings, hospital glass, and sanitary tablets.

Messrs. R. W. WINFIELD and Co., Birmingham and Holborn Viaduct, have a good collection of invalid bedsteads and chairs.

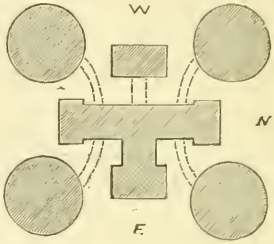
Messrs. ELLIS and Co., Fleet Street, exhibit their portable Cabinet Turkish Baths.

The selection of exhibits by Messrs. MAW, SON, and THOMPSON (Aldersgate Street), is of an exhaustive and varied character, worthy of the character of the firm. It consists of a collection of articles used in the investigation of disease, appliances for the sick room, appliances used for the treatment of the sick and wounded during war, electrical apparatus of comprehensive character, and an extensive assortment of surgical instruments.

MR. HEATON HOWARD, M.R.C.S., Devonshire Road, South Lambeth, contributes an Inflating Nasal Plug.

MESSRS. MOTTERSHEAD AND CO., Exchange Street, Manchester, have an attractive stand well filled with a variety of Medical Dietetic Articles, Batteries, and Chemical Glass.

The pen and ink drawing exhibited by Mr. FRANCIS E. JONES, architect, 20, Cockspur Street, illustrates an hospital on the 'circular ward system' of Professor John Marshall,



F.R.S., adapted to a confined site such as that of University College Hospital. A circular system of wards has already been adopted on a large scale at Antwerp, for the hospital now in course of erection. There, however, the site is practically unlimited. The object of the design now alluded to is to shew the suitability and superiority of circular wards for a confined and enclosed site. The ward towers placed at the four angles of site, fall beyond a line drawn from angle to angle of the cross-shaped administrative buildings, by which they are, therefore, unobstructed as regards light and air; and, in addition, only one point on the circumference of the ward-tower is as near the houses on the opposite side of the street as the whole long side of an oblong ward would be. There is also an uninterrupted view and current of air through three open corridors, the immediately west of the main block of administrative buildings from end to end of the site. The sizes of the circular wards are—internal diameter, 60 ft.; total length of wall, 188 ft.; with 21 beds, floor-space per bed, 134 ft. 6 in., and with wards 15 ft. high, 2017.0 cubic ft. per bed. A similar oblong ward for 20 beds would be about 85 ft. long and 28 ft. wide, or length of wall 226 ft., floor-space per bed 119 ft.; air-space 1785 ft. cube; that is to say, in spite of the 38 ft. extra length of wall, 15 ft. 6 in. less floor-space per bed, and 232 cubic feet less air-space in the case of the oblong ward. The external polygonal shape given to ward towers, is for appearance sake, as well as with a view to economy, owing to the extra cost of 'circular work'; internally the wards to be circular. The ward appurtenances placed on each side of the corridor provide lavatories, bath-room, water-closets, ward-sculleries, sinks, etc. These could be placed in the spandril pieces left at the angles of the site if preferred, unless their too prominent appearance be considered sufficiently detrimental to outweigh the possible advantages of so placing them. Each ward-tower consists of an arched base for coals, heating chamber, etc., and of three independent circular wards of 21 beds each, surmounted by a flat roof available as exercising ground, the portion round the central shaft being possibly glazed for use as a day-room. The towers thus formed are reached from the cross-shaped buildings (in which are all staircases) by open corridors. A main corridor runs the entire length of the long arm of the cross, with small wards, etc., on one side only. This corridor terminates in an operating and clinical theatre on the first floor, and on the ground floor are the entrances for the visiting surgical and medical staffs respectively at either end. In the eastern arm of the cross is the residential accommodation; in the western, wards for cases requiring special isolation. The basement is devoted entirely, with the exception of towers, to the out-patient department; in all, six consulting rooms (top light), two being for special cases

(eye and skin), special waiting rooms, and entrances for male and female patients and for students at each end, casualty room, and dispensary. For further information respecting the advantages claimed for the 'circular ward system', see Professor Marshall's pamphlet read at the Social Science Congress, 1878, and published by Smith, Elder, and Co.

THE CHARITABLE BLANKET COMPANY, LIMITED, Dantzic Street, Manchester, exhibit a variety of their Chartaline Blankets (Henry's Patent), which have achieved a good reputation, the sale having so largely increased as to necessitate the formation of the present company. On hygienic and sanitary grounds they have much to recommend them. They are composed of a layer of wadding between two outer sheets of specially prepared paper, duly perforated for the purposes of ventilation; they are extremely light, warm, cleanly, and very cheap. One Chartaline Blanket is declared by competent authorities to be equal in warmth to two woollen blankets, and at the same time costs but a fraction of the price of the latter. It is almost needless to say that the properties of paper in preventing the too rapid radiation of heat are too well known to render further comment necessary. The Chartaline Blanket is also made and is on view at the exhibition for hospital purposes, having a disinfectant placed between the perforated sheets of paper. While retaining all the other advantages of the blanket, it has the additional merit of containing antiseptic elements. These articles are also made as coverlets for beds, and it is now intended to print and otherwise ornament them, so as to render them as attractive as eider-down quilts, while the cost will be considerably less.

Mr. A. E. FRADELLE, 246, Regent Street, W., contributes an interesting collection of Photographs of Medical Men.

Messrs. LETTS, SON, and Co., Limited, King William Street, E.C., send a good collection of medical ledgers, and diaries, and medical prescription copyists.

Messrs. J. and A. CHURCHILL, New Burlington Street, will exhibit a large collection of the works published by them on the Art and Science of Medicine.

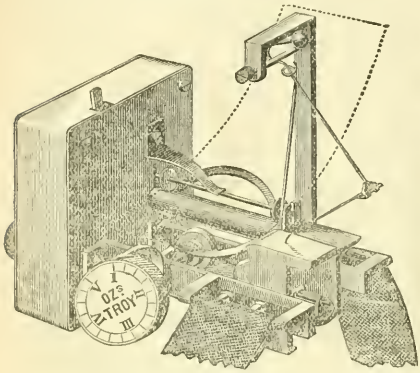
The Silvertown Patent Leclanché Medical Battery will be exhibited by the INDIA RUBBER, GUTTA PERCHA, AND TELEGRAPH WORKS CO., Limited, Silvertown, Essex, and 100, Cannon Street. This Battery has gained a very extensive reputation, gives a constant current of high tension, and is so arranged that its strength may be very easily varied either by increase or diminution, and that the current may be either administered in the constant or intermittent form. It remains in good order for about two years, requiring, meantime, little or no attention, and at the end of that time the manufacturers undertake to restore it to its original usefulness for a similar period at a very small expense. Thus it seems to deserve the favour which it has attained, and it is likely to be of more and more use in proportion as the excellent handbooks on medical electricity now current enable practitioners fully to avail themselves of this valuable therapeutic agent.

MESSRS. SAVORY AND MOORE, New Bond Street, many of whose preparations have a world-wide reputation, make a conspicuous display in an admirably arranged show-case. This firm may fairly claim to have been pioneers in all matters connected with ambulance improvements and aids to military surgery, for which they have received medals at both the London and Paris International Exhibitions, and these appliances form part of their interesting collection. The Medical Field Panniers made by Messrs. Savory and Moore have long been favourably known in the army, and are most useful, especially for detachment service, as they can be strapped on a mule's back with perfect ease. Great improvements have recently been effected in these valuable articles, and they now completely carry out the *multum in parvo* theory; for, although their weight has been greatly reduced, they, nevertheless, contain in separate compartments all necessary instruments, drugs, stimulants, etc., far too numerous to mention here. Perhaps the most ingenious contrivance is the operating table, which can be set up at a moment's notice, being formed from the lids of each pannier, which are double. Another exhibit, of equal merit, is the firm's 'Army Regulation Medicine Chest', a strongly bound box, containing over one hundred drugs, and about sixty articles, from a packet of pins to a stethoscope. On opening the lid of the chest a convenient counter for dispensing is at once formed, and as the whole of the medicines and other matters are arranged on shelves or in compartments, the surgeon can put his hand on what he requires instantly, without any trouble. The Medical Field Companion is another important feature of Messrs. Savory and Moore's stand, and is well adapted for a small party of troops during a 'reconnaissance', or for an exploring party, as, although it weighs under ten pounds, it contains many useful drugs and necessary appliances. There is, in addition, the Surgical Haversack, now used by the army in connection with the new regulations issued to the bearer companies. This is smaller than the Medical Field Companion, and contains all that is necessary for the first dressings of the wounded, and has lately been adopted by the volunteers to be carried by the ambulance orderly when on the march. A series of Medicine Chests of all sizes are arranged round the show case, notably among them being one made by the firm expressly for the Khedive of Egypt, which well deserves inspection. Last, but not least, in this department is the Chemical Cabinet, designed by the late Professor E. A. Parkes, and constructed by Messrs. Savory and Moore, which has been supplied to the Government for use in expeditionary services, and is too well known and appreciated amongst chemists as the 'Parkes Cabinet' to need any further description. Although the display of Appliances for Military Surgery is, perhaps, the most interesting and instructive feature of the exhibition, the other exhibits of this firm, which consist of an artistically arranged assortment of many drugs and preparations, is no less worthy of notice. Amongst these are the Patent Medicated Gelatine Preparations for internal administration, hypodermic injection, and ophthalmic purposes. The gelatine lamels consist of thin pliable and often transparent sheets of uniform thickness, subdivided into squares, each square containing a known quantity of gelatine and a known quantity of some medicine in a concentrated form, so that a waistcoat pocket may contain enough blisters, narcotics, and other medicines to supply a regiment of soldiers or an emigrant ship. The 'Lamellæ Cantharidis' is an excellent form of blister in sheets. Of course the digestive ferments of this firm are shown, consisting of Pancreatin, Pepsin, and Peptodyn, and also their fluid preparations, such as the Neutral Essence and Saline Essence of Pancreatine, and the Elixir and Saline Essence of Pepsine.——Amongst Foods, Messrs. Savory and Moore show two most important and well-known preparations, viz.: their Infants' Food, malted upon Liebig's principles; and also Pancreatic Emulsion, which, as an article of diet in cases of consumption and wasting, is invaluable.——Fluid Meat, a Peptonised Preparation containing the whole of the nutritive constituents of lean meat, is also specially deserving of notice. —— Thirty Varieties of Fluid Extracts of Drugs are also shown on Messrs. Savory and Moore's stand; and their improved Disinfecting Carbolic Acid Vaporiser for disinfecting the air, furniture, bedding, clothes, etc., is a most ingenious and useful little apparatus.

Messrs. MARRATT AND ELLIS, 63, King William Street, London Bridge, E.C., show a case of specimens of their Artificial Eyes, in the manufacture of which they have succeeded in effecting long-required improvements of so advanced and beneficial a character as to render their integral value superior to every prior production of their kind. Of these the most apparent is a transparent aqueous chamber, identical in appearance with that of the natural eye, with which also it is made to correspond, in all cases, in every essential particular. Not the least advantage, however, in practical utility is the extreme hardness of the new material. Impervious to the pungent eye-moisture which was so destructive of previous manufactures, it is said to preserve its brilliance and colour to the last; while its attendant durability, exceeding by at least four to one that of its predecessors, diminishes to more

than the same extent, for obvious reasons, the hitherto considerable cost to the wearer.

DR. DUDGEON, 53, Montagu Square, W., exhibits a Pocket Sphygmograph, two and a half by two inches; weight four ounces. The movements of the artery are conveyed to a steel spring, whose pressure can be raised by an excentric wheel from one to five ounces. No wrist-rest is required, and it can be applied with equal ease, whether the patient is standing, sitting, or lying. The tracings of the needle's movements are made on smoked paper, which

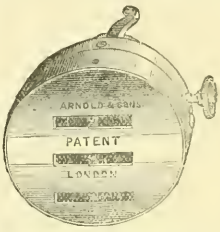


is driven through the instrument by clock-work at an uniform rate. The instrument can be applied, and the tracing made, almost as quickly as the pulse can be felt with the finger. The tracings represent the movements of the artery magnified fifty times. Manufactured by J. Gauter, 19, Crawford Street, W. Agents for the Midland Counties, Messrs. Salt and Sons, Birmingham.

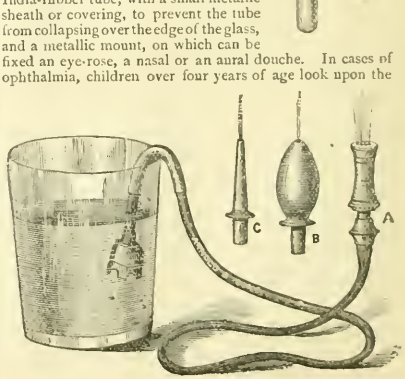
The exhibition is rich in Appliances for the Ward and Sick Rooms. These are exhibited in a variety of interesting features by THOMAS ALLEN, Bristol; ALMONT AND CO., High Street, Stratford; E. J. ALMONT, Stratford Bridge Works; H. BELL, Guildford Street, York Road, Lambeth; Dr. E. DIVER, Yately House, Kenley, Surrey; E. HILTON, Canonbury Road, Islington; JOHN WARD, Tottenham Court Road; and by Mr. J. B. PARKER, Bradninch, Exeter, who shows a new form of Revolving Bed, by which the position of the sick can be changed in any direction, without the least exertion on his part, for cleanliness, change of linen, and for the relief of natural wants. It can also be used for the application of the wet sheet, and the hot-air bath at home. It is likewise adapted for the use of women during their confinements, and for a variety of other purposes, including the safe custody of violent lunatics.

The principal makers in London of dental instruments and specialities are well represented. Messrs. W. and J. JAMIESON, 10, Broad Street, Golden Square, amongst a general assortment of dental appliances, call especial attention to their gold cylinders, blocks, and pellets, a branch of their manufacture with which they have particularly identified themselves. These are shown in a variety of examples, and are shown loose, and to be used as pellets, called Style A., short, compact, but not hard, for use as cylinders only; Style B, crystal elongated cylinders, crystal elongated blocks, crystal blocks, and crystal polygon blocks. Cylinder fittings accompany the cylinders. Messrs. Jamieson claim for their gold, in the form of blocks and cylinders, that it is unequalled for softness and cohesiveness under manipulation, for density when finished, and that it can be adapted to the irregularities of the walls of cavities with greater facility, and also a saving of time by its use. They believe it to be the best gold used in the profession, which, they contend, is supported by the testimonials in their possession. Particular stress is also laid by the firm on their amalgams, of which samples are exhibited.

MESSRS. ARNOLD and SONS, West Smithfield, have a large exhibit of their excellent inventions:—Pocket Clinical Thermometer. Of all the pocket companions now essential to a practitioner, none is more indispensable than a good thermometer. Messrs. Arnold and Sons have attempted to make the scale more legible by colouring it red and indelibly, and the attempt has been successful. The instruments, also, have been carefully tested as to accuracy. The woodcut A shows the thermometer with case attached; C, the instrument without the case; and B, the thermometer case. —— Mallam's Instantaneous Vaccinator (Patented). This little instrument

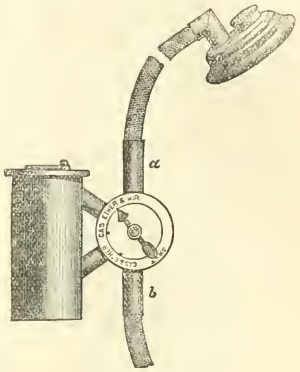


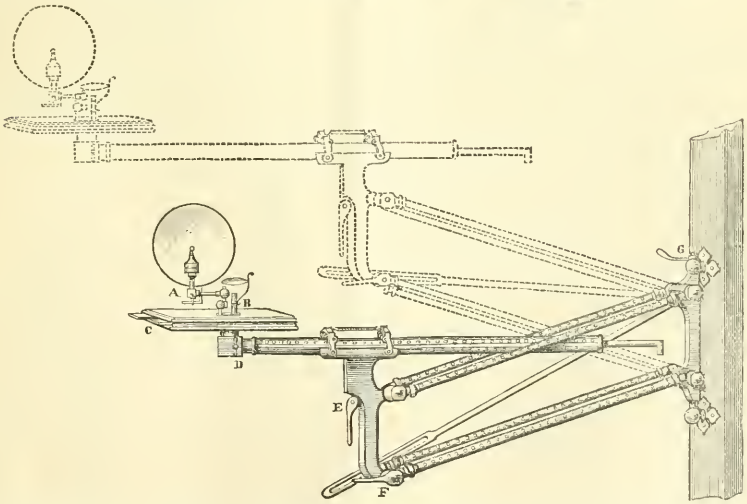
is designed by Mr. Mallam and patented by Messrs. Arnold and Sons, Surgical Instrument Makers to St. Bartholomew's Hospital. The perforated surface is concave, so as to fit the arms of an infant, and the depth of the blades can be easily regulated by a simple screw arrangement. The simplicity of the instrument, together with the celerity with which the operation can be performed, will of itself recommend it to the profession.——Combined Douche for the Eye, Ear, and Nose. This is a modification of the Syphon Douche now in general use. The instrument, as shown in the woodcut, consists of a metallic inlet valve, attached to an India-rubber tube, with a small metallic sheath or covering, to prevent the tube from collapsing over the edge of the glass, and a metallic mount, on which can be fixed an eye-rose, a nasal or an aural douche. In cases of ophthalmia, children over four years of age look upon the



rose-douche as an amusing toy, and will get out of bed and use the douche themselves whilst the nurse is elevating the tumbler of water. The advantage of this arrangement over the old-fashioned method of holding children down by main force, and syringing the eye with a squirt, is at once apparent. The force of the water coming out of the douche, can of course be regulated to a nicety, by raising or lowering the tumbler. The rose-douche marked (A) is also very useful for irrigating wounds, and assists in the removal of dressings. The rose douche (B) may be used to apply an antiseptic or an hæmostatic solution. No harm can be done even to such a delicate organ as the ear by using this kind of douche (C), as the water issues from the nozzle in a continuous stream, and is far more efficacious than an interrupted one. The metal nozzles are much more cleanly than India-rubber, and do not so soon get out of order. It has also been tried, but does not answer, to have the rose made of vulcanite. This simple and useful instrument can be carried in the waistcoat pocket, and is very durable and cheap.——Patent Flexible Throat-Spray. This instrument is an improved form of Spray Producer, which, having a pliable tube, can be readily adjusted, so as to give a spray for the nose, throat, or posterior nares. By this simple arrangement (which is patented) one instrument is made to answer the same purpose, which formerly required three distinct spray-producers. The price is also lower than that of the cheapest vulcanite sprays.

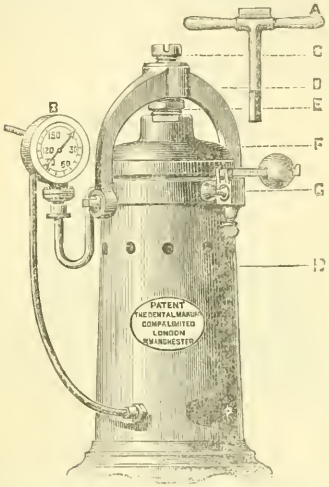
The DENTAL MANUFACTURING COMPANY, Broad Street, Golden Square, Manchester, and Hanley, Staffordshire, and who have just issued the first number of a new monthly, called *The Dental Record*, make an interesting display of their various manufactures. One of the principal of these is their operating bracket, nickel plated throughout, with gas-reflector attached, and of which we append an illustration. This bracket is pronounced as the most complete, useful, and elegant operating bracket at present before the dental profession, and is the only one adapted for gas. It has plain and Bunsen flames. It has an extension of 2 feet 9 inches when at its shortest, and 4 feet when at its longest distance from the wall. It has a vertical range of 19 inches, is instantaneously fixed in any position by a short lever, and requires the use of one hand only. It has the fullest lateral movements that can be obtained in any bracket. Having been designed for gas, it enables us to adopt a reflector for operating with at night or on dark days; an arrangement much neater than a separate reflector, and at the same time more convenient, as it gives the operator a table for his instruments and gold, and a Bunsen burner and annealing tray. If desired, however, both the burners may be removed (by simply unscrewing), and a spirit lamp inserted into the recess in the table. Spirit lamps will be supplied for those who have not the convenience, or do not desire to use gas. Another appliance, which we also illustrate, is an apparatus for the administration of nitrous-oxide gas and ether.





It consists of an ordinary face-plate, having only an outlet valve, which can be closed by a twist of the finger and thumb, an indianette bag, of about three gallons capacity, and the part as in the illustration. This latter is of novel construction; it has in communication four tubes, two passing to the cylinder at the side, which contains sponge saturated with ether; A passes to the face-piece, and B to the gas-bag. The handle of the tap has an indicator, pointing to words on the side. In use, the instrument hangs in front of the patient, about a foot from the

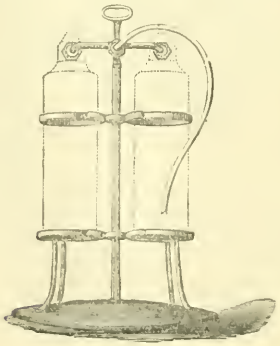
mouth, or may be attached to the person of the operator. The B form of the company's patent safety combination vulcaniser and press, for celluloid and rubber, is likewise shown. This has been patented in most continental countries, and in America. It is alleged of this, that it is the most perfect apparatus for its purpose, yet designed. It



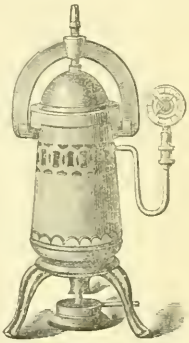
is strong and well made, has no complicated machinery to get out of order, and the self-acting gauge perfectly controls the supply of gas at any point between 10lbs. and 150lbs.; therefore, celluloid or any kind or thickness of rubber may be vulcanised accurately.

MESSRS. SMALE BROTHERS, Great Marlborough Street, have also an excellent assortment of dental instruments, tools, and appliances.

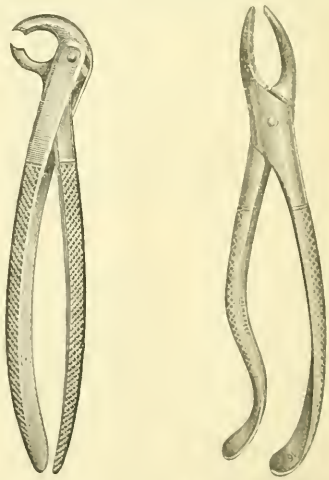
MESSRS. CLAUDIUS ASH AND SONS, Broad Street, Golden Square, are extensive exhibitors of dental appliances, and in one or two features connected with this profession they undoubtedly stand pre-eminent. Of mineral teeth and dental rubbers they are, we believe, the largest makers in Europe; and the perfection, as regards colour and general appearance, to which they have succeeded in bringing their pink or coral-colour rubbers, is probably unequalled. Noticeable amongst the 'appliances', is Napier's portable gas stand for liquid gas bottles, which



we illustrate. This apparatus will hold two bottles of liquid gas—which are secured in position by rings and wedges—and is fitted with a double union which connects both bottles with the face-piece. By this arrangement the bottle in use can be entirely emptied without fear; for, should there be not sufficient gas in it to complete an operation, it is only necessary to turn on the other bottle. After the operation is completed, if another full bottle is not to hand, the double union can be removed, and the union of the Cattlin's bag fixed to the remaining bottle while the empty one is being refilled. The stand is made of iron, bronzed, and the unions of gun metal, the whole being light and portable. The ordinary gas-key can be used, but if desired, an improved key is supplied with the stand, 14 inches in length, which enables the operator to turn the gas on or off without stooping. Their portable vulcaniser is another appliance to which they call attention.



This is fitted with Gartrell's patent steam-pressure and gas-regulating gauge, but in its other features is somewhat similar to other vulcanizers. Their display of dental tools is unique and interesting, and they are particularly strong in the article of forceps, which they manufacture of every



conceivable shape and size. Morrison and White's gas engines, dental chairs, Stewart's improved reflector,

mineral teeth of all kinds of shades, sizes, and lengths, dental rubbers, and the usual adjuncts for the dentist's use figure amongst this excellent display.

Messrs. JAMES ALLEN and SON, Marylebone Lane, exhibit a number of appliances for the sick-room, of their manufacture, including medical baths, vapour-baths, bronchitis-kettles, &c.; and appliances for the sick-room are also sent by Messrs. EDWARDS and BRADLEY, 266, South Lambeth Road. A similar class of exhibits, including a collection of surgical instruments, are shown by Messrs. EVANS and WORMULL, Stamford Street, Blackfriars; and Messrs. A. E. FARMER and Co., 17, Devonshire Square, Bishopsgate, exhibit pharmaceutical preparations in connection with sick-room appliances. BATTLEY and WATTS, 32, Lower Whitecross Street, FLETCHER and FLETCHER, North London Chemical Works, Holloway, GALE and Co, 15, Bouverie Street, MARTINDALE, New Cavendish Street, T. and H. SMITH and Co, 12 Worship Street, ZIMMERMANN and Co., 21, Mincing Lane, BURGOYNE, BURBIDGES and Co., Coleman Street, PAUL METZ, Jewin Street, Cripplegate, and T. MORSON and SON, Southampton Row, W.C., all exhibit collections of pharmaceutical preparations, drugs, chemicals, etc.

The collection of Surgical, Electrical, Chemical, and Ophthalmic Instruments and Appliances is not extensive but of a high order of merit, and embraces all the leading names in addition to the few we have already mentioned in each of these branches of manufactures: Messrs. JAS. COXETER and SONS, Grafton Street East, show both surgical instruments and electrical apparatus; Mr. W. GROVES, Bolsover Street, medical batteries; Mr. DAVID MARR, Little Queen Street, W.C., surgical appliances, surgical instruments, microscopes, and steam-spray producers, the last-named a speciality with Mr. Marr; MAYER and MELTZER, Great Portland Street, surgical instruments; Mr. J. B. THISTLETON, Old Quebec Street, electrical and physiological apparatus; TOWNSON and MERCER, Bishopsgate Street, chemical apparatus, and graduated instruments; JOHN WEISS and SON, Strand, electrical and surgical instruments; J. L. PULVERMACHER, Regent Street, W., electrical instruments; WILLIAM RUSSELL, George Street, Portman Square, surgical instruments; SALT and SON, Bull Street, Birmingham, surgical instruments; W. H. BAILEY and SON, Oxford Street, surgical appliances; HY. CROUCH, Barbican, microscopic and ophthalmic apparatus and optical instruments; A. A. DAVIS, Buckingham Road, Southgate Road, N., microscopes and optical instruments; DONKIN and VECQUERAZ, Tabernacle Walk, Finsbury, electrical apparatus; A. W. GERRARD, Liverpool Road, N., medical apparatus; J. B. MEDLAND, Borough High Street, London Bridge, microscopical apparatus; MILLIKIN and DOWN, St. Thomas Street, Borough, surgical instruments; ROBINSON and SON, Wheat Bridge Mills, Chesterfield, surgical appliances; P. W. SEYMOUR, Guy's Hospital, electrical apparatus; JAMES SWIFT and SON, University Street, microscopes and microscopical apparatus; F. A. DARTON, St. John Street, West Smithfield, surgical and physiological instruments; and ROSS and Co., 164, New Bond Street, microscopes and optical instruments.

Messrs. BURROUGHS, WELLCOME and Co., of 7, Snow Hill, exhibit the following preparations:—Wyeth's Compressed Peptonic Tablets. The introduction of a convenient mode of administering pepsin and other digestive ferments has long been a desideratum. Of the value of pepsine and pancreatine in the treatment of the various forms of dyspepsia there can be no doubt. Each of these tablets represents the full medical activity of twenty grains of pepsine and pancreatine. They are elegant in appearance, and from their peculiar form can be swallowed without difficulty.——Kepler's Malt Extract.—The value of extract of malt as a medicinal agent is as yet hardly fully appreciated. Kepler's extracts are generally liked by patients, and are often taken readily when other forms are not retained. It is a good plan to begin with a teaspoonful three times a day, but the dose may be rapidly increased to a tablespoonful or more. One of the best vehicles for taking the extract of malt is a little warm milk, but some people prefer it alone, whilst others like it with soda-water. It speedily improves the powers of assimilation, and in cases of consumption, scrofula, and many of the wasting diseases of children a wonderful improvement in the patient's condition may be noticed after even a fortnight's treatment. The introduction of Kepler's extract of malt is a decided advancement in therapeutics.—— Wyeth's Compressed Tablets of Chlorate of Potash.—These are a great improvement on the pharmacopœial lozenge. They are extremely useful in removing the huskiness in the throat from which so many public speakers unfortunately suffer. To clergymen, lecturers, and public singers, they are invaluable. In tonsilitis and in the enlarged tonsils of children, they may be given with confidence. Each tablet contains five grains of chlorate of potash.——Burroughs' Beef and Iron Wine.—This is an excellent preparation, and is a great improvement on the vinum ferri of the *British Pharmacopœia*. For convalescents from acute illnesses it is an admirable restorative. For dwellers in large towns who are unable to make a good breakfast, a tablespoonful in a little water about eleven o'clock, with, perhaps, a dry biscuit, will be found most useful. It is well adapted to the treatment of children suffering from rickets or general mal-nutrition. Each fluid ounce contains the nutritive value of two ounces of beef with four grains of citrate of iron.——Wyeth's Dialysed Iron.—This is a neutral solution of oxide of iron in the colloid form, obtained by endosmosis. It has the great advantage over most other preparations of iron that it has no unpleasant smell or taste and does not irritate the stomach. It may be given with confidence when other forms of iron disagree. In anæmia and chlorosis it may be regarded as a specific, and in many cases of what may be called malignant anæmia it is certainly most beneficial. It is the best antidote we possess for poisoning by arsenic. ——Wyeth's Compressed Soda-Mint Tablets.—Each tablet contains four grains of bicarbonate of soda, a quarter of a grain of carbonate of ammonia, and a sixth of a drop of oil of peppermint. They are well adapted for cases of dyspepsia with flatulence, acidity, and heartburn. The soda and carbonate of ammonia act as antacids, whilst the antiseptic action of the peppermint checks butyric acid fermentation.——Fellows' Hypophosphites.—Fellows' syrup of hypophosphites contains the hypophosphites of iron, quinine, strychnia, lime, manganese, and potash. The phosphorus is so lightly combined with the bases that it is equivalent to free phosphorus. This preparation is largely prescribed in what is commonly called 'general debility', and it is especially useful when the debility has arisen from sexual excesses or some functional derangement of the reproductive organs. In the languor which often follows too frequent seminal emission it is highly recommended. It is the best form in which to give the hypophosphites to obtain their constitutional effect.—— McKesson and Robbins' Capsuled Pills.—These beautiful little pills are certainly worthy of attention, and are a wonderful improvement on the old-fashioned bolus. Being oval in shape and completely covered, they may be taken by even the most fastidious patient without the slightest difficulty. That they are active we have abundant evidence. The introduction of bisulphate of quinine is certainly a novelty. On breaking open one of the phosphorus and nux vomica pills, the smell of phosphorus is very perceptible, and in a few minutes distinct fumes can be seen rising from the pill mass. The sulphide of calcium pills will be found most useful in boils and carbuncles, and in the treatment of scrofulous glands in the neck. Messrs. Burroughs and Wellcome are the European agents.—— The Burroughs Hazeline.—Hazeline is a clear pellucid fluid, containing in a concentrated form the active principles of Hamamelis Virginica, the American Witch Hazel. It is largely employed for arresting venous hæmorrhage, and proves equally efficacious whether the blood comes from the nose, lungs, stomach, bowels, or other organ. It is especially indicated when the blood comes up easily and the bleeding is not attended with any expulsive effort. It has been used with success in cases of dysentery when there is much blood in the motions. In the treatment of bleeding piles it is almost a specific. It is given internally

in fifteen-drop doses three or four times a day, and is also used as a local application. It is useful in many affections of the mucous membranes.

HUNYADI JANOS, exhibited by the APOLLINARIS COMPANY, Limited, 19, Regent Street, London, S.W.—This is an aperient natural mineral water from the Hunyadi János Bitter Salzquelle, Buda-Pesth. It is the type of a good aperient water, containing as its chief elements sulphate of soda and sulphate of magnesia. These it contains to an extent far beyond that of the waters previously in use, and which it has largely superseded, such as Püllna, Friedrichshall, etc. In addition to its great richness in these aperient salts, it has the advantage of the natural combination with the carbonate and chlorate of sodium, and of containing a considerable amount of free carbonic acid; conditions which, as Dr. Schwartz has observed, greatly increase the tolerance which the system shows to this aperient water, and must render it more palatable than other bitter waters. Its use had attained extraordinary proportions in Germany before its reputation reached this country; the amount sent from the springs having risen from 40,000 bottles in 1863 to 1,500,000 in 1875. Since that time it has won the approval of the medical profession throughout Great Britain, France, and America, and it has helped to initiate an important therapeutic movement which is now in progress in this country, in the use of very much smaller doses of the saline aperients than had previously been the practice. Therapeutists such as Prof. Macnamara, Prof. Aitken, and others have noted with surprise how remarkably constant, gentle, and valuable an effect may be obtained by the use of the relatively small doses of sulphates and chlorides, with carbonic acid, contained in half a wineglass to a wineglassfull of Hunyadi János water. The former dose is adequate for all ordinary purposes if taken at night; while a wineglassfull taken in the morning, mixed with either warm water or taken in a little hot milk, which completely covers its flavour, suffices to produce a rapid painless aperient action. It appears to be tonic rather than debilitating to the intestine, and powerfully aids in relieving the hepatic and splenic organs and relieving internal congestions. The uses of Hunyadi János are too numerous to be here enumerated, and extend over the whole series of congestions of the viscera; the gout, rheumatic and obese diatheses, habitual constipation, whether in adults or in children; and all diseases which require the use of a moderate evacuant tolerably rapid and yet safe in its action.

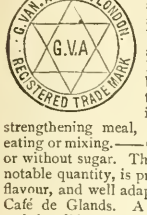
APOLLINARIS WATER—APOLLINARIS COMPANY, Limited, 19, Regent Street, London, S.W.—Not very much need, perhaps, be said of a water which has now become a household word throughout the civilised world. Apollinaris Water springs from a deep rocky source at the Apollinaris Brunnen, Artheil, Rhenish Prussia. This source is alike unparalleled for its outflow of mineral water, and for its richness in carbonic acid gas. The measured outflow of water, carefully ascertained and certified by scientific experiments, amounts to 300 litres every four minutes, equal to 144,000 quarts daily, or 40,000,000 bottles yearly, being four times as much as the quantity of water actually used for bottling, which, according to the official statement, amounts to 10,000,000 bottles yearly. The quantity of carbonic acid gas (as reported by G. Thilenius, president of the Balneological Section of the Medical Society of Berlin, April 19, 1879) exhaled from the spring is so great that, notwithstanding all precautions to prevent its escape and preserve the whole of the gases for bottling purposes, it is impossible in calm weather and with medium barometric pressure to prevent the escape of such a quantity of gas as prohibits too near approach to the opening of the spring. The water is bottled extensively with its own natural gas, and by a method devised in 1852 by Professor Bischof, and described by Thilenius in his paper, as well as by Kekulé and Hofmann, as most satisfactory, since it supplies the water in bottle with the exact proportion of its own gas as it exists in the spring at the depth of 60 feet from the surface whence the water is taken. In order to utilise the richness of the spring in carbonic acid gas the water intended for consumption is drawn off at a depth of 60 ft. below the surface, a depth equal to three atmospheric pressures, and is bottled with a quantity of its own gas drawn from the spring exactly equivalent to that which the water contains at the depth at which it is drawn. Professor Thilenius speaks in this report with surprise and admiration of the minute care and of the 'grandiose' liberality with which the operations of bottling are conducted at the spring, the whole organisation being arranged in such a manner as to ensure the most perfect results. The mean analyses of the spring most recently made by MM. Bischof, Kyll, and Mohr, are :—

Carbonate of Soda	0.9555
,, of Magnesia	0.3775
,, of Lime	0.2608
Chloride of Sodium	0.3765
Sulphate of Soda (Glauber's Salts) ..	0.2128
Oxide of Argillaceous Iron	0.0175
Silicated Acid	0.0137
	2.2043

Apollinaris Water has been described by Dr. Balthazar Foster, as 'without a rival'. This was practically the case when it was first introduced on so extensive a scale into England, France, and America, as a pure table water *par excellence*, or, as it has been more picturesquely called, 'the queen of table waters'. The remarkable success achieved and the universal favour with which Apollinaris was regarded by physicians throughout the world, and by the public generally, as a new element in daily dietetics, and as a means of substituting a pure, most pleasant and healthy table drink for the alcoholic liquors which have been gradually falling in public estimation, have led to the introduction into the market of a great number of competitors. Apollinaris remains not only at the head of the list, but must be regarded as an enterprise entirely without parallel in the history of mineral waters for its extent, completeness, and the great capital invested, and for the high scientific sanction under which the bottling at the well has been conducted, including the personal investigations and reports of such men as Oscar Liebreich, Hoffmann, Kekulé, Odling, in concert with Frankland, Bischof, Virchow, and others. Imitation is the sincerest flattery, and this compliment has been paid to the Apollinaris Water by a host of competitors, many eagerly imitating its mode of bottling, the appearance of its labels, and the especial recommendations which have been given to it by the most eminent authorities throughout the world. The sale of Apollinaris is stated to exceed that of all the other German mineral waters put together. Its use in hospitals is considerable, and is steadily increasing. It was in England where the luxury and high hygienic value of an absolutely pure and pleasant table-water was first adequately appreciated, and that Apollinaris first achieved its great success. Other nations have learnt the lesson and confirmed the verdict, and Apollinaris enjoys now a cosmopolitan reputation of the highest kind.

The exhibitors of mineral and other waters, independent of those we have already named, are numerous, and amongst them is THE MALTINE MANUFACTURING CO., Limited, Great Russell Street, W.C., with the Victoria Bitter Water, and their well-known preparation of Maltine; THE HARZER NATURAL MINERAL WATERS CO., Limited, London Wall, THE GEROLSTEIN WATER CO., 17, Philpot Lane, THE ÆSCULAP BITTER WATER CO., Saracen's Head Buildings, Snow Hill, THE ARSENICAL WATER CO., of Court Street, ETIENNE, Brabant, Belgium, T. T. HIRST and CO., 11, Queen Victoria Street, THE BELLTHAL BRUNNEN CO., 3, Crown Square, S.E., W. R. STEVENS, Flitwick Mineral Springs, near Ampthill, Beds, E. GALLAIS, Margaret Street, Regent Street, ALEXANDER JAMIESON, St. Mark's Crescent, Regent's Park, MOORHOUSE and CO., Hulme, Manchester, and THE GENOVESE MINERAL WATER CO., 3, Great Tower Street.

MR. VAN ABBOTT, 5, Princes Street, Cavendish Square, exhibits a variety of dietetic preparations, including Prepared Taraxacum or Dandelion Powder, to be used as a diet drink by



those suffering from torpid liver, indigestion, scrofula, etc., either alone or mixed with coffee. It is also a good wholesome tonic for adults and children.——Chocolate, with Liebig's Extract of Meat, in cakes, sticks, and lozenges, with or without sugar. Particularly suited for phthisical or debilitated patients, and especially for travellers, as it enables them to carry in a small compass a wholesome and strengthening meal, as the chocolate is good for either eating or mixing.——Callard's Ivory Jelly for Invalids, with or without sugar. This jelly, which contains phosphates in notable quantity, is prepared from ivory, is very delicate in flavour, and well adapted for invalids.——Acorn Coffee or Café de Glands. A very useful preparation for children and invalids, particularly those suffering from indigestion, scrofula, or inefficient nourishment of the system. It is a good tonic, and can be used either alone or mixed with ordinary coffee.——Specially prepared Clear Ox-Tail Soup, for invalids, without vegetables, farinaceous substance, or gelatine.——Preparations for Diabetics, etc.:—1. Real Turtle, Mock Turtle, and Ox-Tail Soups. Free from starch, and as free as possible from fat and seasoning; excellent in quality and flavour. 2. Extract of Vegetables, for flavouring Extract of Meat, Soups, Gravies, Hashes, etc. A remarkably well-flavoured and powerful essence. A few drops give quite an appetising taste to beef-tea, broth, etc.——Gluten Macaroni. Used the same way as ordinary macaroni, but without sugar, in puddings.——Gluten Flour, for diabetes, debility, indigestion, and corpulence.——Gluten Vermicelli, which may be used for broth and soups, without sweet vegetables, as carrots or turnips, etc., and puddings without sugar.——Gluten Semola, for debility, diabetes, indigestion, etc.——Bran Gluten Biscottes. This bread is said to be superior to any other form hitherto produced for the use of diabetics.——Gluten Chocolate without Sugar.——Whole Wheat Meal Biscuits, without Sugar.——Dietetic Extract of Vegetables, for flavouring Liebig's Extract of Meat, Soups, Gravies, Hashes, etc.——Hypophosphite of Lime Biscuits, for delicate children, especially those suffering from deficiency of bone, weak joints, or debility. Each biscuit contains five grains of the hypophosphite of lime.——Dietetic Bran Biscuits for Dyspepsia, etc. Mr. Van Abbott is so well known in connection with invalid cookery, and particularly in catering for diabetic patients, that his preparations will be inspected with considerable interest by the profession.

MR. BONTHRON, 106, Regent Street, who has well identified himself with diabetic cereal foods, exhibits his various specialities in the form of Bread, Biscuits, and Powder for Diabetic Patients. Speaking of these foods, Dr. Pavy, in his recent work on Diabetes, p. 245, says:—'Mr. Bonthron, of 106, Regent Street, has recently succeeded in producing some Gluten Biscuits and Bread which are more eatable than anything of the kind I have ever yet met with. The biscuits present somewhat the character of a cracknel; they eat short and crisp, and are readily reducible in the mouth, have no unpleasant taste, and, consumed with other food, possess the power of cleansing the palate. The bread is moist, and will not keep good for more than about ten days. Its consumption, therefore, involves a frequent supply. It serves to increase the variety at the command of the diabetic; and, independently of this, possesses the advantage of presenting an approach to the condition of ordinary bread.' Mr. Bonthron has recently brought out a new Bran Biscuit, which he shows here for the first time, and which has a decided improvement in taste over any that have preceded it. He alleges that he has treated the bran in an entirely different manner. All silica and bitterness or tannin are entirely eradicated; the biscuits are short and crisp to the taste, and appear not at all unsuited for general purposes, as well as for the diabetic patient.

PEPTONISED MILK.—The whole current of medical and chemical research has of late years tended to show in an increased degree the value of the introduction of peptonised elements into the diet where it was desirable to give easily digested food. The Lumleian Lectures of Dr. W. Roberts, F.R.S., in 1880, called attention very prominently to the advantage of the use of milk-peptone in nurseries as an infant diet in sickness, and sometimes also in health. The object is to change the casein of the milk into peptone without materially altering the flavour and appearance of the milk. This process, for which Dr. Roberts gives careful indications, is one which can only be carried out successfully by a skilled chemist, and with the aid of a properly fitted laboratory. Both these requisites the AYLESBURY DAIRY COMPANY possess in a most perfect degree; and hence, having also an expensive organisation for the purpose of the daily delivery of milk, they are enabled to supply peptonised milk from day to day, where required, to perfection, and at a cost which brings it within the reach of all.

WHEY.—Whey, like other milk products, requires to be carefully and scientifically prepared, in order to meet the necessities of medical practice. The whey supplied by the AYLESBURY DAIRY COMPANY is prepared under the superintendence of Dr. Vieth, and is made without acid, and free from fat and casein. The whey thus prepared contains the valuable mineral ingredients of milk in full quantity, the chlorides being very greatly increased in proportion. The salts in milk include 67 per cent. of phosphates to 33 per cent. of chlorides; on the other hand, the salts in whey contain 40 per cent. of phosphates to 60 per cent. of chlorides, a dietetical indication which at once explains much of the special value of whey in medical treatment.

Medical Dietetic Articles are sent by the popular firm of BRAND AND CO., Little Stanhope Street, Mayfair; by H. and T. KIRBY and Co., in combination with medicine cases and pharmaceutical preparations. Mr. JOHN W. RICHARDS, Great Russell Street W.C., sends a collection of medical dietetics; Messrs. SOUTHALL BROTHERS and BARCLAY, Birmingham, contribute an assortment of surgical dressings, splints, and medical dietetics; EVANS, LESCHER, and WEBB, Bartholomew Close, have a miscellaneous collection, consisting of numerous drugs, lime fruit drugs, and cordials, Materia Medica Cabinet, and medical envelopes; concentrated food is shown by GEYELIN AND CO., Belgrave House, Argyle Square, W.C.; M. and LEOPOLD HOFF, 3, Charterhouse Buildings, exhibit the different medical dietetic articles that have become connected with their name; KOFF'S EXTRACT OF MEAT CO., Limited, Draper's Gardens, are present with their dietetic specialities, and a further collection of dietetics is contributed by Messrs. E. CHAPMAN and Co., Duke Street, Portland Place. THE BRITISH SIPHON MANUFACTORY, Gresham Buildings, Basinghall Street, show an assortment of syphons and seltzogenes for ærated waters; and Dr. ROBERT LEE, Savile Row, W., sends an inhaler. Dr. CHARLES RENNER, Portsdown Road, Maida Vale, shows specimens of calf-lymph; and the various preparations of vaseline are shown by the CHESEBROUGH MANUFACTURING CO., Holborn Viaduct; JEYES' SANITARY COMPOUNDS CO., Limited, Bishopsgate Street, send their soaps and disinfectants; Mr. EUGENE RIMMEL, of the Strand, exhibits some pretty aromatic vaporizers and disinfectants; and CONDY'S FLUID CO., Falcon Street, E.C., send an assortment of their popular disinfectants.

FOREIGN EXHIBITS.

THE following is the list of foreign exhibitors, and of the articles they purpose sending. We shall notice them critically in a future number.

J. BROCKER, Utrecht, Holland, sends a Stupe of Flax.

Dr. JEAN BUFALINI, Siena, Italy, contributes a Plessimeter.

C. H. BURK, Archiv Strasse, Stuttgart, exhibits a collection of Pharmaceutical Preparations.

Signor ARISTIDE CONTI, Castrocaro, Florence, Italy, exhibits a variety of Chemicals.

W. F. W. ECKELL, Christiana, Norway, exhibits a group of Medical Dietetic Articles of native manufacture.

J. H. DE BASSY, Spinsstraat, Amsterdam, sends a variety of Splints.

Dr. MARONE EMMANUELE, Campobasso, Italy, shows an Auto-Stethoscope.

Messrs. GANERNACK and REINBOTH, Louisenstrasse, Dresden, contributes some Electrical Apparatus.

W. J. HAUCK, Kettenbrucken Gasse, Wieden, Vienna, exhibit an interesting assortment of Optical Instruments and Physiological Instruments.

MAX KAHNEMANN, Spandauer Strasse, Berlin, sends an Apparatus for Antiseptic Treatment and a collection of Surgical Bandages.

Dr. GIAMBATTISTA LAURA, Via Cavour, Turin, is present with an interesting collection of Microscopic Sections.

JOSEF LEITER, Mariannen Gasse, Vienna, shows Medical Appliances of a varied character.

EDWARD LIPOWSKY, Heidelberg, sends Appliances for the Ward and Sick Room.

Professor PIETRO LOVETA, Bologna, Italy, sends a Cystotome.

Messrs. R. and H. MATHIEU, Fils, Boulevard St. Germain, Paris, will have a case of Surgical Instruments of French manufacture.

EMANUEL MERCK, Darmstadt, Germany, sends a collection of chemicals.

American Dietetic articles will be contributed by Messrs. J. and L. MURDOCK, Boston.

M. NACHET, Rue St. Severin, Paris, sends Microscopes and Physiological Instruments.

Dr. FRANCESCO OLIVETI, of Naples, sends a collection of Obstetric Instruments.

The International Society for the Manufacture of Wound-Dressing Materials, Schaffhausen, Switzerland, have an assortment of Antiseptic Surgical Dressings.

Mons. A. TRIPIER, Rue de Hanovre, Paris, sends some plans for the Ventilation of Theatres.

Dr. VAJDA, Nagler Gasse, Vienna, sends an Urethral Irrigator.

H. WINDLER, Dorotheen, Strasse, Berlin, has a collection of Physiological Apparatus.

BÆKMANN and BURMESTER, Stockholm, shows a collection of Medical Apparatus.

CARL BERG, Manteuffel Strasse, Berlin, has an assortment of Chemical Apparatus.

Turkey will be represented by J. CAUZUCH, Grande Rue de Pera, Constantinople, with an assortment of Pharmaceutical products.

The GODESBERGER MINERAL WATER CO., Market Platz, Bonn, Germany, will exhibit their Mineral Waters.

W. J. HAUCK, Kettenbrücken Gasse, Vienna, send Inhalation Apparatus.

Dr. ISENSCHMIDT, Sophien Strasse, Munich, Bavaria, sends a Model of the Larynx for Teaching.

H. KAPPELLER, Jun., Kettenbrücken Gasse, Vienna, has a collection of Clinical Thermometers and a Urinometer.

American Surgical Instruments are to be sent by D. W. KOLBE and SON, Arch Street, Philadelphia.

HEINRICH KARL, Olmutz, is present with his Pharmaceutical Preparations.

Professor LABUS, S.S. Andrea, Milan, sends a Model for Laryngoscopic Operations.

Dr. LANDOLT, Rue Volney, Paris, sends a Telemeter.

J. PAUL LIEBE, Dresden, contributes a collection of Medical Dietetic articles.

EDWARD LOEFLUND, Stuttgart, will show a sample of Malt Extract.

ERNEST RUCHONNET, Romanel-sur-Lausanne, Switzerland, sends a collection of Mineral Waters.

VICTOR SCHMIDT and SON, Albe Gasse, Wieden, Vienna, will show a collection of Drugs.

Dr. W. A. SEDLITZKY, Salzburg, Austria, sends various Pharmaceutical Preparations.

Dr. TARTENSON, Rue de Chateaudun, Paris, exhibits various Pharmaceutical Preparations.

A variety of Dental Instruments and Appliances is sent by Mr. S. S. WHITE, Chestnut Street, Philadelphia, U.S.A.

Appliances for the Ward and Sick Room are shown by Dr. BARDA, 49, Rue Blanche, Paris; and Pharmaceutical Preparations are exhibited by G. FR. CHIMICA BARONI, Modena, Italy, by ARTURO D. CIULLINI, Dicomano, near Florence, and by W. H. SCHIEFFELIN AND CO., New York.

Surgical Instruments are shown by WILHELM DEICHE, Dresden, by EDWARD MESSTER, Friedrich Strasse, Berlin, and by C. WATTER BIONDETTI, Bâle, Switzerland.

A very useful case of Medical and Surgical Apparatus for use in cases of railway accidents is exhibited by the COUNCIL OF THE ROYAL HUNGARIAN STATE RAILWAY, Buda Pest.

Medical Apparatus is contributed by Dr. LOUIS GRÖSZ DE CSATER, Universitäts Gasse, Buda-Pest; and a collection of Artificial Legs is sent by C. GEFFERS, Schiff bauerdam, Berlin.

AUGUST WEMSCH, Worms-on-Rhine, exhibits an Inhalation Apparatus.

MISCELLANEOUS SECTION.

The foreign exhibits in this section will consist of a book from Dr. FRANCIS HOEBER, Bad-Homburg, near Frankfort-on-Maine; a collection of the same from EDWARD LIPOWSKY, Heidelberg; Dietetic Articles from AUGUST PLANCK, Getreidemarkt, Vienna; Books from Dr. THANLOW, Modums Kuranstalt, Norway; and from Dr. F. VALLARDI, Via Disciplini, Milan, Italy.

The Preparations of Meat-Juice by Mr. MANN S. VALENTINE, Richmond, Virginia, U.S.A., will be exhibited by Messrs. COREYN, STACEY and Co, High Holborn. This extract of meat has been in use for some few years in the States, but has not as yet been brought into that prominence in the United Kingdom that its merits appear to deserve. Dr. Oscar Liebreich, Professor of Materia Medica in the University of Berlin, and Dr. Rudolf Virchow, Professor of Pathology in the same University, speak of it in the highest terms. These gentlemen say, amongst other things, that, 'the colouring matter of the muscles which, as is well known, is identical with the colouring matter of the blood, is retained in the preparation in a completely unchanged condition, as in no other meat extract known to us. The Meat-Juice contains also a certain quantity of albumen in solution'. After observing that the samples in their possession had undergone no perceptible change for four months, they add, 'Provided, therefore, that "Valentine's Meat-Juice" is so produced as to continue to retain its original purity, it is to be regarded as a real acquisition to the dietetic remedies prepared for sanitary purposes.' The judges of the International Exhibition at Philadelphia, 1876, said: 'It more nearly represented fresh meat than any other extract of meat', and some of our own leading professional journals speak of it in similar terms. A two-ounce bottle, of which we append an engraving, contains the equivalent of a pint and a half of the ordinary extract of beef. Mr. Valentine informs us that he uses only the flesh of selected cattle of the choicest Durham stock found in West and South-West Virginia, of an average weight of 1,500 lbs., that he often slaughters 10,000 lbs. of beef daily, and that his expenses might be reduced some thousands of dollars monthly, if he used a coarser grade of stock, which he will not consent to do.

MISCELLANY.

FATAL RESULTS FROM THE BITE OF THE BLACK SPIDER.—Doctor Dax of Sommières relates six persons bitten by the *Latrodectus tridecim guttatus* of Rossi, a somewhat rare large species found in Provence and Languedoc. All the patients showed the following symptoms in a more or less marked degree: first, uneasiness, headache, and weakness; then dyspepsia, rachialgia, cramps, and tinglings, with coldness of the extremities; in one case only the symptoms became for a time alarming. Cure was obtained in all the cases at the end of twenty-four hours by the exhibition of ether and diffusible stimulants.

SAVORY AND MOORE'S SPECIALITIES.

NEUTRAL ESSENCE OF PANCREATINE
SALINE ESSENCE OF PANCREATINE
SALINE ESSENCE OE PEPSINE
ELIXIR OF PEPSINE. (Acid Glycerole of Pepsine.)

REGISTERED.

'Most powerful preparations in the form of mother liquors, of pleasant odour, and highly palatable.' Dose, 1 drachm. See *British Medical Journal*, December 13th, 1879, p. 965; March 20th, 27th, and April 3rd, 1880.

Obtainable in any quantities of all Wholesale and Retail Chemists, etc.

PANCREATIC EMULSION, OR MEDICINAL (PEPTONIZED) FOOD, in CONSUMPTION and WASTING, will always take precedence of Cod-liver Oil, by reason of its introducing the Stable SOLID Fats into the system, instead of the evanescent FLUID fats or oils.

It supplies the kind of fat necessary for sound and vigorous human life, which none of the *Liquid* Oily Emulsions, nor even Cod-liver Oil itself, can supply.—Dose 1 to 3 drachms stirred little by little in milk, water, or any suitable vehicle.

PANCREATINE (in Powder or Granules). Represents the active principle of the Pancreatic Juice, by which Fats and Oils are digested and assimilated. Dose, 3 to 5 grains.

PANCREATINE WINE. An excellent vehicle for taking Cod-liver Oil, and promoting the digestion of it. Dose, 1 drachm.

PEPSINE PORCI AND WINE. 'The Pepsine prepared by your process is possessed of considerably more digestive power than that of any other description of Pepsine.'—DR. LETHEBY. Supplied in bulk or small bottles.

PEPTODYN. A combination of the whole of the Digestive Secretions—Pepsine, Pancreatine, Diastase, or Ptyalin, etc.; forming a valuable remedy in the treatment of Dyspepsia, and Diseases arising from imperfect nutrition. Dose, 3 to 5 grains.

LIQ. FERRI HYPOPHOSPHITIS COMP.
VIN. FERRI HYPOPHOSPHITIS COMP.

Prepared from the formula of Dr. Frederick Churchill (Victoria Hospital for Children). Non-saccharine substitute for Chemical Food, Steel Wine, etc. (Iron, Soda, Lime, and Magnesia.) *Vide Brit. Med. Jour.*, March 27, 1880. Dose, of the Liquor, minims 15 to 60; of the Vinum, 1 drachm, to be diluted.

LIQ. BELLADON DIALYSATUS. One fl. oz. contains all the active crystalloids of 10z. of Ext. Bellad. P.B. freed from all albuminoids and inert matter.

LIQ. CINCHON. DIALYSATUS. A solution of the whole of the active crystalloids of Yellow Bark in their natural combinations. Dose, 10 to 30 minims.

EXT. OPII LIQUIDUM DIALYSATUM. Purified from irritant and gummy matters. Corresponding in strength to the Ext. Opii Liq. P.B.

FUCUS VESICULOSUS (Sea Bladder Wrack). Was formerly in great repute for Goitre and Scrofulous Swellings, and for many years has been known as a remedy for Morbid Obesity.—See correspondence on ANTI-FAT in *Brit. Med. Journal*, Fluid Extract, Tincture, and Pills.

DATURA TATULA. Asthma and difficult Breathing arising from affections of the Respiratory Organs promptly relieved by Datura Tatula Inhalations, prepared as Cigars, Cigarettes, Tobacco, Pastilles, and Powder for burning. Also Tincture, Ethereal Solutions, and Extract. 'It is a remedy of great efficacy.'—*Dublin Journal Medical Science.*

THE FINEST COD-LIVER OIL Is not only the PALEST in colour, but it is the PUREST and the most PALATABLE kind in use.

COD-LIVER OIL, Combined with Alkaloids, Medicinal Salts, and other important substances capable of solution in Cod-liver Oil.

PHOSPHORIZED COD-LIVER OIL. Was introduced to the Profession by Messrs. Savory & Moore. The advantage of this (the ORIGINAL) preparation over the imitations of it consists in the ability to administer a SUFFICIENT dose of Phosphorous without the admixture of a LARGE quantity of Cod-liver Oil. Dose, 1 to 2 drachms. Supplied in bulk or small bottles.

PHOSPHORIZED COD-LIVER OIL, with QUININE. Dose 1 to 4 drachms.

PHOSPHORUS PILLS, 1-32nd of a grain, or any strength required, non-resinous and perfectly soluble.

PANCREATISED (DIGESTIVE) COD-LIVER OIL. By combining the Pancreatic Juice with the Oil, the digestion of the latter is easily and rapidly effected, nausea is prevented, and the beneficial properties of the Oil are increased. Dose 1 to 4 drachms.

MEDICATED GELATINE PREPARATIONS. For INTERNAL, EXTERNAL, HYPODERMIC, and OPHTHALMIC Use.

THE BEST FOOD FOR INFANTS. The only Food specially prepared for Infants, possessing every requirement necessary in a diet for children brought up wholly or partially by hand. Tins 1s., 2s., 5s., and 10s.

DR. FELTON'S INHALER. For the Inhalation of Chloride of Ammonium, and various Medicated Vapours. For use in the treatment of Hay Fever, Asthma—Bronchial and Catarrhal Affections. Occupies the space of an ordinary 3-oz. bottle. *Descriptive Pamphlet on Application.*

Descriptive matter of the above forwarded on application.

SAVORY AND MOORE,

143, NEW BOND STREET, LONDON, W.

LAC BISMUTHI (SYMES)

Hydrate of Bismuth, possessing in a specially active and high degree the properties of this drug. Dose 3j to 3ij.

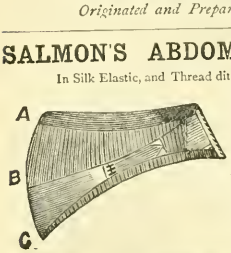
LAC BISMUTHI ET CERII (SYMES)

Particularly useful in Sickness during Pregnancy. Dose 3j to 3ij.

Originated and Prepared by SYMES & CO., Manufacturing Chemists, Liverpool.

SALMON'S ABDOMINAL BELT,

In Silk Elastic, and Thread ditto, from 17s. to 50s.



The Belt is light in texture, and affords a more lifting support than any hitherto made, completely supporting the lower part of the Abdomen. It is recommended in cases of Obesity, Tumour, Prolapsus Uteri, and during and after Pregnancy.

HENRY E. SALMON,
87, Wimpole St., Cavendish Sq., London, W.
(corner of Wigmore St.)

SALMON'S OBSTETRIC BINDER,

For immediate use after delivery. 6s. 6d.; by post, 6s. 10d.

The Binder is a substitute for the towel generally used immediately after labour. It is made of strong linen, and dispenses with the usual pinning. The advantages of the Binder are facility of application, combined with comfort and greater efficiency. Measurement required, ordinary size of the waist.

HENRY E. SALMON,
Wimpole Street, Cavendish Square, London, W.
(corner of Wigmore Street).

STRUTTS' ABSORBENT COTTON WOOL

is 'especially adapted for the use of the surgeon and dentist.'—(*The Lancet*). It is 'by reason of its softness and absorbent power' (*British Medical Journal*) 'far superior to the ordinary wool for dentist's purposes' (*Medical Press*). It 'supplies a want very much felt hitherto in practical surgery' (E. BECHER, Esq., M.D.) and is 'the best medium for external application of any fluid met with during thirty years' practice' (T. G. CRESSY, Esq., Milton Barracks, Gravesend).

TO BE HAD OF
W. G. and J. STRUTT, Belper, Derbyshire
(OR THROUGH THE WHOLESALE HOUSES),
AND 45, FORE STREET, LONDON, E.C.

DIABETES.—'Caution.'—Order VAN ABBOTT'S Bran Gluten Biscottes, as 'other Bran Biscuits contain no nutriment whatever. This Bread is superior to any other form hitherto produced for the use of "DIABETICS."'—*Lancet*, Jan. 18th, 1873. VAN ABBOTT'S GLUTEN BREAD, BISCOTTES, Flour, Chocolate, etc. Price List of Diabetic and Invalid Foods and Dietary Tables post free.—VAN ABBOTT, 5, Princes St., Cavendish Sq., W.—Foreign Mineral Water Warehouse.

DELICATE CHILDREN.—VAN ABBOTT'S Hypophosphite of Lime BISCUITS, for Delicate Children, especially those suffering from Deficiency of Bone, Weak Joints, or Debility. Each Biscuit contains five grains of the Hypophosphite of Lime. 'Quite free from disagreeable taste, and taken willingly by Children, and certainly provide an excellent means of administering this valuable compound. Our Analysis proves the accuracy of the printed description on the labels of the boxes. The Biscuits were suggested by Mr. W. Adams, of the Orthopædic and Great Northern Hospitals.'—*Lancet*, Nov. 4th, 1876.
VAN ABBOTT, 5, Princes Street, Cavendish Square.

LIEBIG COMPANY'S EXTRACT OF MEAT

Liebig
TRADE MARK

An invaluable and palatable tonic for Invalids.
Peculiarly efficacious in all cases of debility and weak digestion.
*** In use in most households throughout the kingdom.
Ask for Liebig COMPANY'S Extract, and see that no other is substituted for it.

CAUTION.—Numerous inferior and low-priced substitutes being in the market (sometimes accompanied by misleading analyses) purchasers must insist on having the Company's Extract, which for flavour and clearness is pronounced by all competent authorities to be the best.

N.B.—Genuine ONLY with fac-simile of Baron Liebig's Signature, in Blue Ink, across Label.

GOLD MEDAL, PARIS, 1878.

FRY'S COCOA EXTRACT

IN PACKETS AND TINS.

Pure Cocoa only, with the superfluous Oil extracted.

SAMPLES SENT POST FREE ON APPLICATION.

A TRIUMPH OF PHARMACY.

COD-LIVER OIL RENDERED AGREEABLE AND DOUBLY EFFICACIOUS BY

MACKENZIE'S COMPOUND COD-LIVER OIL EMULSION.

Composed of Select Cod-Liver Oil, Pepsine, and Hypophosphite of Lime.

Can be taken with pleasure by Invalids and Children. Has received the HIGHEST APPROVAL and *recommendation of Leading Members of the Medical Profession*, after an extensive trial in Private Practice and in the large Medical Hospitals. As a remedy for Consumption, Wasting Diseases, Bronchitis, and Affections of the Chest generally, and for imparting muscular strength, with a healthy appearance, it is unsurpassed—the great objection to the use of Cod-liver Oil in such cases being entirely overcome. In Bottles at 2s., 3s. 6d., and 6s. each. To be had of all Chemists. Prepared by

MACKENZIE & CO., Operative Chemists, 45, Forrest Road, Edinburgh, who originally introduced this preparation.

FIRST ESTABLISHED 1825.

NEAVE'S FOOD FOR INFANTS AND INVALIDS.

LANCET—"Carefully prepared and highly nutritious."
BRITISH MEDICAL JOURNAL—"Well adapted for children, aged people and invalids.

IN ONE SHILLING CANISTERS.

SOLD EVERYWHERE. WHOLESALE OF THE MANUFACTURERS,

J. R. NEAVE & CO., FORDINGBRIDGE, ENGLAND.

TENERIFFE WINES.

SHIPPED BY

Messrs. HAMILTON & Co., TENERIFFE.

Of fine character, pure, generous, and dietetically recommended by the highest Medical Authorities.

NOTICE.—Messrs. SINCLAIR, HAMILTON, & Co., 17, St. Helen's Place, E.C., invite the attention of the Medical Profession to the subjoined wines, which will be found finer in flavour, purer in character, and not less suited for daily use than high-class sherries. Samples furnished on request.

S.H.	'Teneriffe'	£24	Per 100 gallons in bond London landing gauges.
E	'London Particular Vidonia' ...	£34	
L.G.H.	'Old London Particular Vidonia'	£40	

In Pipes, Hhds., and Quarter Casks.

	In Pipes and Hhds.	£15 10s.	Per Pipe f.o.b. Teneriffe.
„	In Quarter Casks	£16 10s.	

SINCLAIR, HAMILTON, & CO., 17, ST. HELEN'S PLACE, E.C.

SAVORY & MOORE'S SPECIALITIE

The Liquid Extracts of the Digestive Ferments.

'Most powerful preparations in the form of mother liquors,' of pleasant odour and taste.

PANCREATINE, Neutral Essence of.

A perfectly tasteless preparation, specially adapted for the peptonization of milk, arrowroot, and other mucilaginous articles of diet in general use in the sick room.
Dose, 1 drachm.

PANCREATINE, Saline Essence of.

The most powerful agent for the digestion of Fat and Farinaceous Foods.

These preparations are reliable and concentrated forms adapted for all the purposes for which Pancreatine and Pepsine are administered.
Dose, 1 drachm. (See *Brit. Med. Jour.*, Dec. 13, 1879, p. 965, etc.)

PEPSINE, Saline Essence of.

The most powerful agent for the digestion of Meat, Milk, Eggs, etc.
May be taken with Food as a Sauce or Ketchup.

PEPSINE ELIXII (Acid Glycerole Pepsine).

A convenient solution for a ture with other remedies, as Bismuth, etc., its syrupy 1 rendering it easily miscible other syrups and aqueous fli
Dose, 1 drachm.

These Preparations are obtainable in any quantities, of all Wholesale and Retail Chemists, etc.

A special form of nutriment in CONSUMPTION, and where there is a tendency to other WASTING and DEBILITATING DISEASES, attended with loss of power to digest and assimilate food.

PANCREATIC EMULSION, or MEDICINAL (PEPTONIZED) FOOD,

Will always take precedence of Cod-Liver Oil and Oily Emulsions, by reason of its introducing the Staple SOLID Fats into the system, instead of the evanescent FLUID fats or oils. It supplies the kind of fat necessary for sound and vigorous human life.

PANCREATIC EMULSION presents to the Lacteals fat in exactly the same condition for assimilation and absorption as in the vigorous human frame, and the agent of the important change is the natural secretion of the Pancreas. Dose, 1 to 3 drachms, stirred little by little in milk, water, or any suitable vehicle.

PEPTODYN. A Combination of the whole of the Digestive Secretions—Pepsine, Pancreatine, Diastase, or Ptyalin, etc., forming a valuable remedy in the treatment of all forms of Dyspepsia, and Diseases arising from imperfect nutrition. Dose, 3 to 5 grains.

LIQ. FERRI HYPOPHOSPHITIS CO.

A NON-SACCHARINE SUBSTITUTE FOR 'CHEMICAL FOOD.'
(Dr. FREDERICK CHURCHILL, Victoria Hospital for Children.)

VIN. FERRI HYPOPHOSPHITIS CO.

(Dr. FREDERICK CHURCHILL, Victoria Hospital for Children.)

Solutions of the Hypophosphites of Iron (Ferrous Salt), Lime, Magnesia, and Soda obtained without the aid of sugar or strong mineral acids, which have been used with marked success at the above-named Hospital as TONIC, ANTACID, and STOMACHIC REMEDIES—of special value in the treatment of Diseases of Children, and free from the objectionable characteristics of the saccharine 'Chemical Food', and the uncertain composition of 'Steel Wines.' Vide *British Medical Journal*, March 27, 1880.
Dose—of the Liquor, minims 15 to 60; of the Vinum, 1 to 4 drachms, to be diluted. Supplied in any quantities required.

SAVORY & MOORE, 143, New Bond Street, London, W.
AND ALL CHEMISTS THROUGHOUT THE WORLD.

RESTORATION OF THE PHOSPHATES TO FLOUR AND BREAD
Mc DOUGALL'S PATENT

'This is one of the most useful gifts which science has made to mankind.'—BARON LIEBIG.

IT IS WELL KNOWN that in removing the 'bran' and 'middlings' from flour during the process of milling, THE CHIEF PORTION OF the PHOSPHATES —the salts of the wheat—ARE ALSO REMOVED, thus GREATLY REDUCING THE NOURISHING POWER OF THE BREAD produced from it. . . . . .

In **McDOUGALL'S PATENT FLOUR** *these phosphates are restored*; yet it has at the same time the finest colour or 'bloom', and flavour so necessary to produce tempting bread and pastry. It contains the **ENTIRE NUTRITION OF THE WHEAT** and is of **NATURE'S STANDARD.**

BREAD made of McDougall's Patent Flour is of finest colour, taste, and texture, yet contains the entire Nutrition of the Wheat.

May be had from leading Bakers.

For **HOME-MADE** Bread, and Pastry of all kinds (rich or plain, baked or boiled) McDougall's Patent Flour is unequalled, owing to its **HIGHER NUTRITIOUS QUALITIES** and the **EASE** and certainty attending its use.

[The Flour being also Self-Raising, bread may be made from it with or without yeast or barm, according to flavour desired. N.B.—Baking Powder must not be added.]

The Price is about the same as ordinary Flour of equally fine quality.

In Cotton Bags of 25, 50, 100, & 200 lbs.; also in smaller quantities in Paper Bags at a slight advance.

See that each Bag of Flour bears as a guarantee our Signature.

THE FLOUR IS PREPARED ONLY BY THE PATENTEES,

McDOUGALL BROS.,

London: 10, MARK LANE, *And Wheatsheaf Mills.*
Manchester: POLAND ST., *And City Corn Mills.*

MAY BE OBTAINED FROM GROCERS, BAKERS, AND DEALERS.

NOTES.—If any difficulty is found in procuring the Bread or Flour, please inform Messrs. McDOUGALL, who will see it is supplied.

Full particulars relating to the Patent Flour, and to the importance of the restoration of the phosphates, are contained in a pamphlet 'How Flour is Impoverished', etc., to be obtained from the Patentees, Messrs. McDOUGALL, or their Agents.

FERRIS & COMPY.'S
ANODYNE AMYL COLLOID.

(Secured by their Registered Trade Mark.)

Strongly recommended as a most valuable topical application in cases of Neuralgia, Sciatica, Lumbago, and all Muscular Pains. It is prepared with Hydride of Amyl, Aconitia, Veratria, and Ethereal Collodion, etc. The Hydride of Amyl, by its rapid volatilisation, often produces immediately the desired result; but should the pain continue, the alkaloids can be brought into increased activity by applying moist Spongio-Piline over the Collodion film. This preparation has, in the hands of a large number of medical men, given the MOST MARKED AND SATISFACTORY RESULTS in Neuralgia and Muscular Rheumatism.

TREATMENT OF NEURALGIA—Letter from Mr. METCALF JOHNSON.

[*To the Editor of 'THE MEDICAL TIMES AND GAZETTE'.*]

'SIR,—May I ask you to lay before your readers the following results of my experience in the treatment of Neuralgia, which is to my mind so likely to afford relief to suffering humanity that I do not feel justified in witholding it? The treatment consists in painting the part affected with ANODYNE AMYL COLLOID, prepared by Messrs. FERRIS & Co., Druggists, of Bristol, and in the exhibition of a remedy composed of the Tincture of Gelseminum and Tincture of Guarana. The following cases of relief will be my justification for offering advice to use a prescription of a somewhat secret nature :—

'J. B. called one morning, suffering from facial neuralgia in all the four points of the surface development of the facial nerves. I painted his face over the four spots, and before the liquid was dry his pain was gone. It returned the next day, but was again relieved by the remedy, the relief lasting for twenty-four hours.

'I met A. B. in the street, who was complaining of an obstinate Neuralgia, which had resisted several of the usual remedies. A trial of the treatment here indicated was attended with immediate relief.

'It has been tried, I believe, at my suggestion, by one member at least of a family of three of my professional brethren.

'A patient suffering from podagric Neuralgia of the forearm finds such relief that frequent resort is had at night to the use of the painting with the ANODYNE COLLOID.

'A few days since, a lady suffering from that painful affection called "soft teeth", caused by caries, and in whose case considerable swelling was apparent, found immediate and permanent relief by painting the cheek with the remedy.

'A clergyman, of very high nervous organisation, and in whom, as is often the case, considerable strength of mental power is developed, described the relief which was obtained by use of both the remedies as "like magic". In several other instances, of which I have kept no record, relief has been obtained by the use of one or both remedies.

'Hoping this will induce more of your readers to try the remedies suggested, I leave the case in your hands, merely adding that the ANODYNE AMYL COLLOID professes to be a solution of Aconitine and Veratrine, with Hydride of Amyl in a medium of Collodion; but the proportions are not stated. The Tinctures of Gelseminum and Guarana are in all probability better known to your readers. I have, at the request of Messrs. FERRIS & Co., already given them my testimony to the value of their preparation, in a letter addressed to them a few weeks ago. If you will kindly insert these few remarks in your paper, I think you will oblige many of your subscribers, as you will also.

'Lancaster, *May* 1878.' 'Yours, etc., METCALF JOHNSON.'

[*From 'THE MEDICAL RECORD', London, May* 15, 1880.]

'We have submitted to trial the "ANODYNE AMYL COLLOID", prepared by Messrs. FERRIS & Co., of Bristol. It is prepared with Hydride of Amyl, holding in solution Aconitia and Veratria, and combined with Ethereal Collodion. *We have tried it in Neuralgia and Muscular Pains with marked benefit.*

'The Amyl rapidly volatilises, leaving a Collodion film on the skin.

'The intensity of the action of the alkaloids may be increased by the subsequent application of spongio-piline moistened with warm water.'

FERRIS & CO.'S ANODYNE AMYL COLLOID.

In 1 oz., 2 oz., and 4 oz. Bottles, 1s. 6d. per oz.; in 8 oz. and 16 oz. Bottles, 1s. 3d. per oz.

IMPORTANT CAUTION.

Medical Gentlemen are earnestly and respectfully desired to observe that they are supplied with Messrs. FERRIS & CO.'S ANODYNE AMYL COLLOID. This preparation differs essentially from all others. Some UNRELIABLE and USELESS imitations are being advertised, which bear no resemblance either in composition or effect to FERRIS & CO.'S special formula. See that every Bottle bears FERRIS & CO.'S Registered Trade Mark.

PURE CALF VACCINE,

FRESH EVERY WEEK.

Messrs. FERRIS & Co. have arranged to receive a regular weekly supply of PURE CALF LYMPH, collected under the personal superintendence of Dr. J. W. COOK, Manningtree.

Tubes, 2s. 6d. each; Glasses, 2s. 6d. each; Large Points, 12s. doz; Small Points, 6s. doz.

FERRIS, BOORNE, TOWNSEND, AND BOUCHER,

Manufacturing Chemists, & Wholesale & Export Druggists,

4 and 5, UNION STREET, BRISTOL.

Apollinaris

EXTRACTS FROM RECENT HOSPITAL REPORTS.

CHARING CROSS HOSPITAL, W.C.: *July 9th,* 1880.

As regards the use of Apollinaris water in this Hospital, I can only give my own experience. The class of cases for which the water is specially adapted as a remedial agent, seldom makes its way into our Hospitals, and my experience has, consequently, been entirely limited to its use as a dietetic. I have long been accustomed to use milk and soda water as food and drink in many cases where digestion is feeble, and the stomach irritable, but practically, I have found that in private cases where the mixture was made at bedtime to last for use throughout the night until morning, it soon became unpalatable. This is much more likely to occur in the crowded wards of a Hospital than in a private room, and, accordingly, I set myself to find out by actual experiment the relative values of such a water as Apollinaris and ordinary soda or other artificial water. The trials were carefully conducted; the circumstances being precisely similar; and it was found that with the Apollinaris Natural Mineral Water the milk remained far longer sweet and palatable than with the artificial compound. Moreover, from its constituents, the Apollinaris is likely to be more useful and beneficial in the cases I refer to, than ordinary soda water would be.

(Signed) ALEXANDER SILVER, M.A., M.D.,
Physician, &c., to Charing Cross Hospital.

GERMAN HOSPITAL, DALSTON: *July 28th,* 1880.

I have been instructed by the Committee of our Hospital to acknowledge the receipt of your letter, addressed to them respecting the result of the use of the Apollinaris water, with which your Company has been kind enough to supply our Hospital now already for some time.

Our Committee have referred the matter to our resident medical officers, and they have been assured by them that the Apollinaris water, as supplied by your Company, has been and is still in use in our wards, and that it is found an agreeable, refreshing, and useful drink for invalids and convalescents. (Signed) A. WALBAUM, D.D.,
Hon. Secretary.

(Translation.) 'The Apollinaris Natural Mineral Water was used during the summer of 1879 at the Royal and Imperial Hospital, "Wieden", in the Medical Department of Drs. Ritter von Eisenstein and Oettinger and in the Surgical Department of Professors Drs. Mosetig and Ritter von Moorhof and of Dr. Kumar.

'From the reports of these gentlemen, the senior physicians of the Hospital, it follows that Apollinaris Water excels other Mineral Waters in purity and agreeable taste, but chiefly in the extraordinary quantity of carbonic acid gas which it contains, and that it thus deserves preference over other mineral waters in cases where the action of Carbonic Acid is indicated.

'The Water has proved itself to be a cooling and refreshing drink in febrile and acute affections, and has been employed with favourable results in cases of catarrhal diseases of the bronchial, digestive, and urinary organs.' (Signed) DR. LORINSER. 29th December 1879.
Direction des K.-K. Krankenhauses, Wieden, Vienna.

Additional testimony and information may be obtained on application to

THE APOLLINARIS COMPANY, LIMITED,

19, REGENT STREET, LONDON, S.W.

Printed by THOMAS RICHARDS, 37, Great Queen Street, W.C., and published by SMITH, ELDER, & CO., 15, Waterloo Place, London.